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ABSTRACT

A project was conducted to deliver general educational development (GED) instruction through an audio teleconferencing system to adult students in Arizona. Using a previously existing audio teleconferencing system owned by Rio Salado Community College in Phoenix, Arizona, project staff developed a series of credit and noncredit teleconferencing courses in reading, writing, math, social studies, and job search skills. Students were able to receive instruction using several types of equipment: a telephone receiver, a headset, a speaker phone, or a convener (if several students were located at the same site). Special efforts were made to recruit and enroll adults who were homebound, handicapped, or residents of a geographically remote part of the State. Publicity materials and program resource guides were developed and disseminated to GED project directors throughout Arizona. Attachments to the report include the following: (1) publicity materials designed to promote the program; (2) an information sheet for instructors involved in the program; (3) handouts addressing math, English, writing, spelling, social studies, reading, daily living, and employment skills; (4) letters welcoming students to the program and outlining its content and operation; (5) a resource guide for teachers involved in delivery of the teleconferencing program; and (6) a program evaluation form for teachers. (MN)

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RIO SALADO
COMMUNITY COLLEGE

ADULT BASIC EDUCATION PROGRAM
135 North 2nd Avenue
Phoenix, AZ 85003

FINAL REPORT

for

GED PREPARATION VIA THE SUNDIAL NETWORK

An Audio Teleconferencing System

A 310/Special Demonstration Project

1984 - 1985

Project Director: Mary I. Johnson, Associate Dean of Instruction

Project Coordinator: Janet C. Gesin

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GED PREPARATION VIA THE SUNDIAL NETWORK
(An Audio Teleconferencing System)

A GED Curriculum Project

Adults who were homebound, handicapped and/or living in geographically remote areas of the state were often limited by the educational services available. This grant was designed to offer an alternative delivery method. Audio teleconferencing provided a means of joining two or more groups or individuals in different locations through a telephone system. Phone lines transmitted an instructor's voice to communities and sites miles away where it was amplified in each distant classroom or home, and heard by the students through a microphone or telephone. Necessary visuals used for instruction were either included in print materials distributed to the distant learners or transferred to slides which were sent to each learning site. All that was necessary at the site to participate in this form of distant learning was a telephone and an electrical outlet. (See ITEM 1)

IMPLEMENTATION

Objective 1: To adapt and deliver GED preparation instruction through audio teleconferencing.

The grant coordinator and Project Director met to discuss resources within Rio Salado Community College (RSCC). The Instructional Technology and Design (ITD) Department had offered to train the instructors, to utilize resources within Project Homebound and the use of the SUNDIAL Network, the audio teleconferencing system owned and operated by RSCC. The Darome "Meet-Me" Bridge, central control for the system, could connect up to 20 different distant locations for simultaneous interactive instruction. Project Homebound is a part of ITD devoted to recruiting homebound students for credit and non-credit courses. (See ITEM 2)

Considerable time was spent reviewing textbooks that could benefit students in the program. The textbooks needed to have clarity of subject matter and suitability for the proposed ten-week time span. Another point regarding book selection that was considered: the books should not be so thick that the students would be overwhelmed when the package of books was received in the mail. This was not a major point, but our instructors felt it was valid.

The instructors decided on GED Scoreboosters 1, 2 3, Steck-Vaughn, as the main textbooks and Building Basic Skills in Science, Contemporary Books, Inc., to complete the set.

The Associate Dean of ITD gave the instructors copies of course outlines and syllabi from the credit and non-credit teleconferencing courses to use as guides for our grant. One of the training sessions dealt with the rationale of having both a course outline (specific listing by class time of each subject to be covered, the homework and reading assignment, and any other hand-outs to be used by the student) and a course syllabus (general outline of information about class times, competencies or objectives for the class, information from the instructor about attendance, office hours and textbooks).

The instructors worked together to design lesson plans that would be capable of completion within a ten-week span. A decision was made to divide the class period into three sessions: math, writing and reading. GED Scorebooster 2 covered reading, social studies and science in a reading format. The course outline generally followed the books with additional support given in the form of hand-outs. The instructors used materials from several publishers. The handouts were included in most lessons as reinforcement and support for the students. Furthermore, the hand-outs were a key tool used by the instructors in their audio lectures to help students visualize key concepts and ideas. (See ITEMS 3 and 4)

It was learned that if there were more than one site per class, then a bridge would be needed. The instructor could be at the bridge location or could use a convener at another location. A convener is a microphone and amplifier that transmitted the student responses to the instructor. This freed the instructor's hand so that s/he could use hands for books and materials.

The student had several options in available equipment -- telephone receiver, head-set, speaker phone or a convener if several students were located at one site. If a student was physically handicapped, using a head-set or speaker phone might alleviate any difficulties. We had students using a speaker phone (3 students at one site), a telephone receiver and a head-set for these classes.

A specifically designed assessment for reading and math needed to be developed to determine the level of materials that the students would use in class.

The Friday morning class originated in Yuma, Arizona and had two course outlines, adult basic education and job readiness. The textbooks listed were used for math, writing and reading and a cassette set The Job Hunt, Coronet Instructional Media Division of Esquire, Inc., was used.

Objective 2: To recruit and train experienced GED faculty who are interested in providing GED instruction through audio teleconferencing.

It was very important to have instructors who were competent and comfortable with the content areas. The instructors were experienced in multi-level classes and accustomed to presenting a "student-teacher interaction" type of class.

The instructors were completely involved in the planning stage of this project. The lead instructor was selected to be the curriculum developer, who reviewed materials, designed the course outline and prepared hand-outs. All of this work was completed with the agreement of instructors and grant coordinator.

A technician of SUNDIAL Network trained the instructors in the technical aspect of audio teleconferencing. This gave the instructors an opportunity to observe the workings of the bridge during a class in session. It was important that the instructors have this training before actually designing lesson plans because there is a better understanding of what would be successful.

The Associate Dean of ITD gave four training sessions to the instructors. One session used Bridging The Distance, An Instructional Guide to Teleconferencing, by Manis Monson, as a guide. The four steps to interactive teleconferencing: humanizing, participation, message style and feedback were taught. The instructors realized how valuable the humanizing factor was in having a successful program. This book was good for the beginner in teleconferencing. (See ITEM 5)

One training session dealt with course outlines and course syllabus. This was referred to in Objective 1.

Another training session was strictly questions and answers. This session was very useful to the instructors - "How do I convey some mathematical concepts without using a blackboard?" "What happens when no one responds?" "What do the other students do while I'm explaining a specific point to one student?" "What happens when a student is absent?" How do I keep their attention?" After this session ended, the instructors realized that the success of the program depended on their ability to humanize teleconferencing and encourage participation by the students.

The final session involved a simulation/critique via teleconferencing. Each instructor prepared a 20 minute presentation with the Associate Dean of ITD serving as the student. She role-played several student reactions to the lesson to provide the instructors with practical situations during teleconferencing.

Objective 3: To recruit and enroll adults to participate in the program who are homebound, handicapped and/or living in geographically remote areas.

This objective began as the easiest to organize, but successful completion did not happen. An Advisory Committee was formed to facilitate reaching the adults who needed this service. The members selected had expressed an interest because of their job related experiences. The committee was comprised of: Mary I. Johnson, Associate Dean of Instruction, Adult and Development Education, RSCC; Janet Whitaker, Associate Dean of Instruction, Instructional Technology and Design, RSCC; Bill Hunter, State Department of Education/Teacher Testing Division; Sergio Fernandez, Counselor, Department of Economic Security, (DES); Karen Mills, Recorder, RSCC; Cynthia Maxson and Jacquelyn Tapia, RSCC ABE instructors and Janet C. Gesin, Grant Coordinator, RSCC.

The Advisory Committee meeting dealt with the issues of technology, promotion, instruction and materials. Janet Whitaker provided a synopsis of the use of technology to teach adults and a tour of SUNDIAL Network. She provided input about the independent skills that users of this technology must possess.

Promotion was not seen as a problem because there could be distribution through the Project Directors and possibly through the Teacher Testing Division representative of the Arizona Department of Education. A concern was expressed regarding possible students and the terminology "GED" on the flyers.

Project Homebound, a program allowing handicapped people to take college courses by telephone, had been receiving inquiries about the possibility of a GED preparation class for the homebound. Helen Sprawls, Director, agreed to include an announcement about the classes in the next "Homebound" flyer mailed from RSCC. Students referred from Project Homebound began calling the RSCC ABE Program inquiring about the GED Teleconferencing class. We mailed a reading and math assessment and information letter to each possible student. These were to be completed and returned. The students were genuinely excited about the opportunity available for completing their education. (See ITEM 6)

The potential student population had a range of skills from low reading and math to those qualified to take the GED test. The possible students from Yuma needed assistance in "getting through the system" at DES offices. This broad base caused the Advisory Committee to realize that this program would have to be different things to different people. Therefore, the curriculum received modifications after the Advisory Committee meeting.

The grant coordinator met with Gloria Becerra, Assistant Director, Division of Employee and Rehabilitation Services, DES in Phoenix. The entire concept was explained and a request made to utilize the Yuma facility as requested by Sergio Fernandez. Calls were made and an appointment set up with Jim Amarillas, Yuma office. Cynthia Maxson and Janet Gesin went to Yuma, met with counselors and Jim, explained the program, checked for room arrangements and left the materials and books for fifteen students.

By February, 1985, the bridge times had been set, materials had been mailed and class instruction was ready to begin. An effort was made to accommodate students, no matter their personal schedule. The class times were arranged for Thursday evening, Friday morning and Saturday morning for two and one-half (2 1/2) hours per class. The initial packet: welcome letter from instructors, course syllabus, course outline, textbooks, handouts and postcards, was mailed to the students two weeks in advance. One week before class began, a memorandum of reminder was mailed to the students. (See ITEM 7) It is VERY important to maintain a constant communication between the program and students before classes begin. This certainly alleviates much of the anxiety.

The initial enrollment was eight students in the Saturday morning class, five students in the Thursday evening class and three students in the Friday morning class. We did not meet our projection in the number of students to be served. Delays had set the starting date much later than anticipated, so a decision was made to start classes with the student population enrolled. The students were quite anxious.

The Resource Guide includes a workable summary and timeline for instructors. This is a generalized guide for an ABE program. (See ITEM 8)

DISSEMINATION

A folder including the Resource Guide (see Item 8), course outline and syllabus (the outline serves as lesson plans because it includes assignments and handouts), and information about recruitment and promotion was distributed to all Project Directors.

EVALUATION

The instructors were receptive to the program and after training sessions became comfortable with this delivery approach. They were capable and adapted well to this type of audio-only delivery. The Associate Dean of Instructional Technology and Design observed that with greater lead time for scheduling of the bridge, more remote locations could be served throughout Arizona.

The evaluations by the instructors were positive toward the class, textbook and materials. The responses by the students were very rewarding. The written communication between student and instructor prior to the first class meeting helped bridge a gap of non-visual contact. Both instructors would consent to teaching another teleconferencing class if one were offered by RSCC ABE program.

The students overwhelmingly participated, learned, socialized, responded and generally enjoyed this audio-only type of delivery. For some of the students, it was an opportunity to realize their potential, an opportunity to be part of an educational system, and an opportunity to expand their horizon beyond the home. A student wrote "I just want you and your entire education program to know how important it is for people like myself, who cannot attend classes to have the opportunity to speak to people like yourself to help us help ourselves."

RECOMMENDATIONS

Recruitment of students proved to be the most difficult part of this project. Potential students were unaware of such an educational advantage; therefore, they had not reached a program director for information or enrolled in an ABE/GED class. Being associated with Project Homebound was our important link with such a student population. A student population must be identified and eager for classes before this portion of the project can be successfully completed.

It would be the recommendation of Rio Salado Community College Adult Basic Education Program to reverse the order of the objectives. The order should be recruitment of students, recruit instructors, adapt materials.

During the teacher training, more time should be spent in the simulation/critique phase. The instructors felt this session should have been divided into several presentations for more experiences: practical situations, role playing, voice training and other techniques useful to the audio teleconferencing delivery.

A specific reading and math assessment must be developed to better place students according to ability. The assessment must be simple enough in explanation that a potential student could complete it without teacher assistance. Remember, the student might never see the instructor and this first instructor/student contact must be specific.

The continuation or beginning of a teleconferencing class should be considered by program directors throughout Arizona. Students, handicapped, homebound and/or living in geographically remote areas, needed this alternative delivery system. More contacts with several county/city agencies should have been pursued more vigorously. A recommendation would be to pursue these contacts for potential students.

CONCLUSION

This alternative delivery system helped reach an untapped resource of adults in Arizona. The geographic make-up and rural population areas of the state provided a reason for the inclusion of teleconferencing. Teleconferencing could provide an opportunity for personal education outside the classroom. With a teleconferencing program, every student is called on during every class session. A student from Yuma said, "Talking to the teacher made me feel good." This per-

sonalization encouraged participation by students and instructors. Participation was the key word -- administrator, agency, instructor, student -- all were an integral part of teleconferencing.

It was very important to have a support system such as, Instructional Technology and Design Department, SUNDIAL Network and Project Homebound. These components helped defray the expenses and provided the expertise.

Rio Salado Community College Adult Basic Education Program realized that the very low level (3.0-5.0) reader had difficulty maintaining the schedule. Much more time needed to be devoted to examples and practice than was included in the course outline for a ten-week span. The adaptability and flexibility of this delivery system could be adapted to the lower skill levels, but major changes within the curriculum would need to be made. Audio teleconferencing was designed for the self-starter who could work without constant teacher input and contact.

For our instructors and program, audio teleconferencing was a learning experience. This allowed new curriculum development for our program, reinforcement of language skills for our instructors, and the opportunity to provide education to students unserved by traditional classroom practices. Teleconferencing proved that technology is an integral part of adult basic education in Arizona.

GED PREPARATION VIA THE SUNDIAL NETWORK
(An Audio Teleconferencing System)

- ITEM 1 - A Sound Connection
- ITEM 2 - Audio Teleconferencing Instructor's Information Sheet
- ITEM 3 - Handouts
- ITEM 4 - Handouts
- ITEM 5 - Bridging the Distance
- ITEM 6 - Homebound Flyer
- ITEM 7 - Letters
- ITEM 8 - Resource Guide

A Sound Connection

Minutes before noon, the calls start coming in.

"Gila Bend here, Mark. Can you hear me?"

Mark Butler, an audio teleconferencing technician at Rio Salado Community College, answers affirmatively. He flicks several switches on a sophisticated control panel and MG 175, Business Organization in Management, is on the air.

Behind the plate glass window of Butler's control booth, instructor **Bill Austin** adjusts a set of headphones, clears his throat and begins to take roll. Over a speaker comes voices from Scottsdale, Gila Bend and several places in between.

Class is in session. The future of higher education is taking shape in the small, soundproof rooms of Rio Salado's Phoenix offices.

Called the Sundial Network, Rio Salado's teleconferencing program began last spring after extensive planning by Associate Dean of Instructional Technology and Design **Jan Baltzer**.

"We wanted to invest in delivery systems which could change rapidly, rather than invest in classroom technology which could become outmoded," she said. "This teleconferencing system will prove extremely versatile in the years ahead."

Its versatility has already been demonstrated. Because students and faculty interact over regular telephone lines, almost any place can serve as a classroom or audio podium.

"We had one instructor stuck out of town on business," said **Roy Spurgeon**, Rio's director of audio confe-

rencing. "He ended up teaching class from his hotel room."

Several students hospitalized last spring never even missed an assignment. They simply picked up the phone and joined their classmates in group discussion.

Should a student miss one of the teleconferencing classes, there is no need to scramble around for notes. Each class session is taped and a copy made available at Rio Salado's downtown office.

Students isolated in rural areas are finding the Sundial Network their best - and sometimes only - opportunity for higher education.

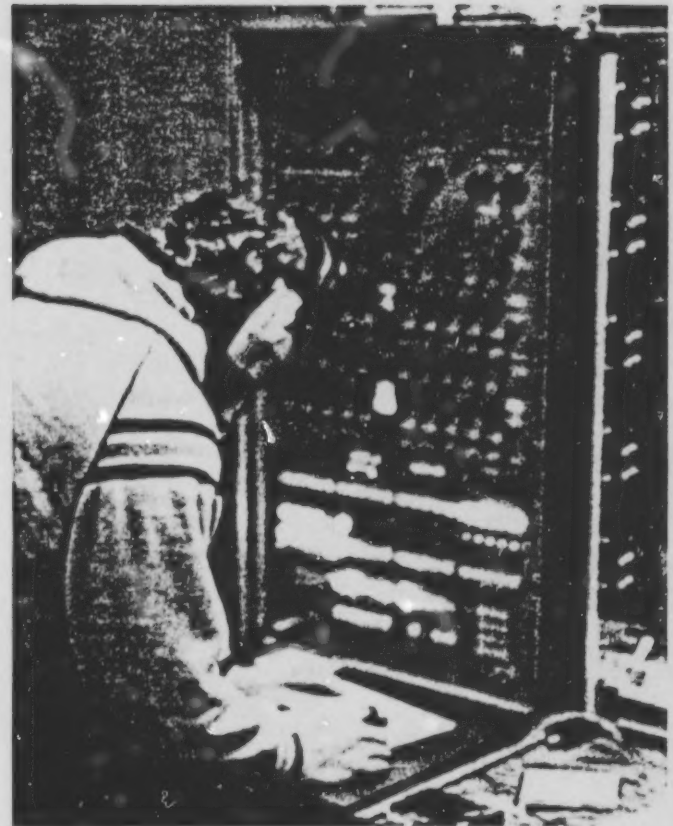
That's the purpose of the Sundial Network. Through its communications system, it brings people together.

There are currently 10 teleconferencing classes taught at 32 regular sites throughout the Valley and central Arizona. A total of 220 students are currently enrolled in the program and ten additional classes are planned for the spring.

"It may sound like a paradox," Spurgeon said. "But students find this type of instruction more personal than a regular classroom. 'There is no corner to hide in. The instructor gets to know each and every student and calls on them regularly.'"

Spurgeon moved to Phoenix last year from Oregon, where he worked on a system similar to Rio's Sundial Network.

"There really isn't a comparison," he said. "This system is a lot better than the one I was involved in up there."



I think Jan Baltzer did an incredible job putting this together."

In addition to its academic duties, the Sundial Network has become a functional management tool for Maricopa district personnel.

Since Rio is the "college without walls" and has centers located throughout the Phoenix metropolitan area, teleconferencing is often the only way to get the institution's employees together for a meeting.

"There are so many uses for this system," Baltzer said. "I think we're only scratching the surface. We've even begun using the system for counseling."

When Rio Salado held an advisement day for its Fire Science Degree program, the Sundial Network was used to connect area fire stations with the college. Counselors and perspective faculty were able to provide program information and answer questions posed by the firemen.

Already on the drawing board is Project Homebound - a service designed to provide handicapped and bedridden individuals with instruction in their homes or hospitals.

"We've discovered a real need for this, especially for patients temporarily homebound," Baltzer said. "No program currently exists for them and its unfortunate

because their normal lifestyles have been interrupted and nothing exists to fill the void."

Next spring, another element of the Sundial Network will make its debut. Still pictures will be sent over phone lines by a process called slow scan.

"We'll have that (slow scan) capability at six sites," said Butler. "It will be especially helpful for technical or math classes which utilize graphs and other displays."

Teaching class without the traditional chalk board has not been a problem, according to Austin, who is an original instructor in the program.

"Faculty members have to work a little harder and know exactly what they're going to present before a class," he said. "All visual aids must be prepared and sent out by mail to the sites beforehand."

"But I find students seem to learn better via teleconferencing. In general, test scores

have been higher than those in my regular classes. My students say they concentrate better using the teleconferencing system."

It takes a few turns on the microphone, however, before many students overcome "stage fright."

"It's really funny," Butler said. "The first couple of lessons nobody wants to talk, but then about the third night, everybody opens up and is anxious to participate and it just goes from there."

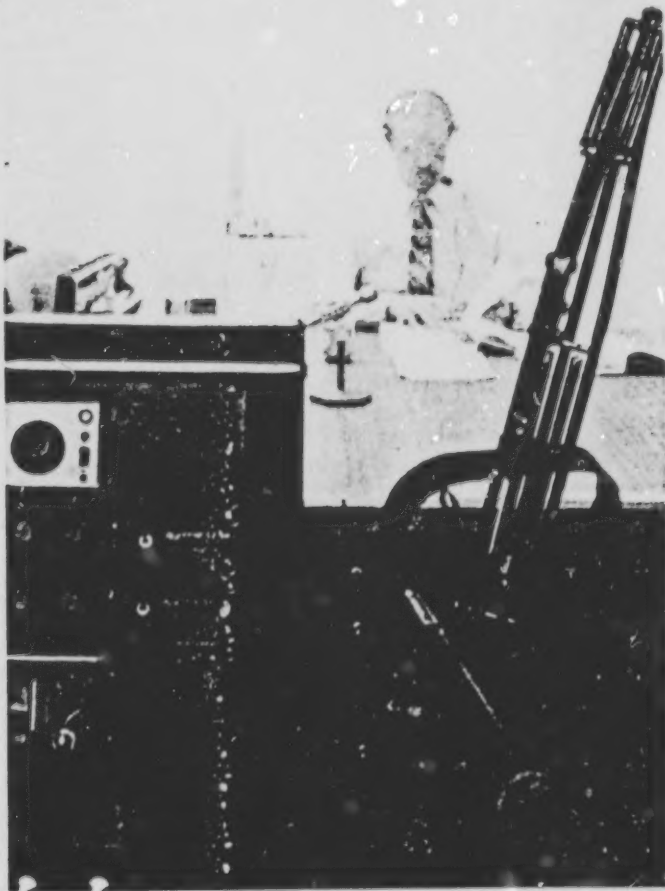
That participation is the key word in teleconferencing. Instructors attempt to reach each student during a class session and encourage group discussion. Sometimes, those familiar voices on the speaker system will paint surprising

pictures of themselves.

"I remember one time a business class was having a discussion on supermarket prices," Butler said with a chuckle. "Somebody said they didn't buy dairy products because they owned a cow it turned out half the people in the class owned cows! You often forget that these people are calling from the outlying areas."

No matter where the calls come from, Rio Salado's Sundial Network has apparently got a sound connection when it comes to advanced communication and the future of education.

"I'm excited," Baltzar said. "The response to this program has been excellent."



The Sundial Network • Technician Mark Butler links instructor Bill Austin to students enrolled in one of Rio Salado's 10 classes taught at 32 sites via teleconferencing.



RIO SALADO COMMUNITY COLLEGE

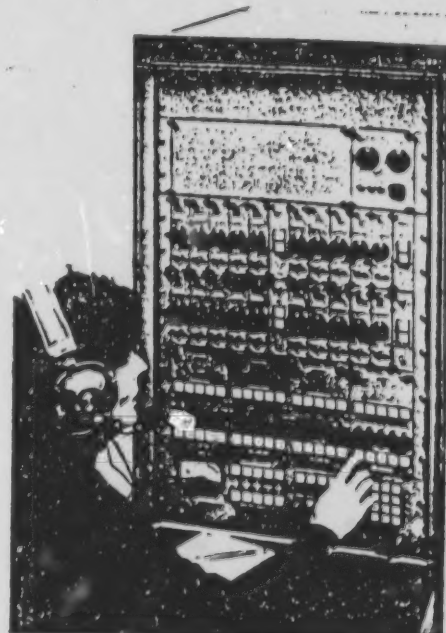
AUDIO TELECONFERENCING INSTRUCTOR'S INFORMATION SHEETThe Concept of Audio Teleconferencing

Teleconferencing is the means of joining two or more groups in different locations through a telephone system. In an instructional audio teleconferencing system, phone lines transmit an instructor's voice to communities and sites miles away where it is amplified in each distant classroom, and the students communicate with the teacher and other students through a microphone. Necessary visuals used for instruction are either included in print materials distributed to the distant learners or are transferred to slides which are sent to each learning site.

The Technical Components

There are three technical components of the Rio Salado Community College Audio Teleconferencing System:

1. Station Equipment: The piece of equipment which will be used by students in the distant classroom is called a Darome Convener. Students will hear the instructor's voice and the voices of other students through the speaker box and can communicate with the instructor by pressing down the bar on the microphone.
2. Transmission System: The transmission system for the Rio Salado Community College Audio Teleconferencing System will be regular phone lines which crisscross the entire county. The system will be available anywhere where a regular phone line already exists.
3. Network Control Equipment: The central control for the Rio Salado Community College Audio Teleconferencing System will be a Darome "Meet-Me" Bridge. This bridging device can connect up to 20 different distant classrooms at a time for simultaneous, interactive instruction. In addition to connecting 20 sites simultaneously, the bridge also has the capability of breaking down those 20 sites into smaller groups for discussion and problem solving and then reconnecting the groups for continued instruction.



Multiplication

Essential Math Skills

McGraw Hill

1

EXAMPLE $2 \times 3 = ?$

2×3 is the same as $3 + 3 = 6$

Complete the multiplication table. Some numbers are filled in to help you get started.

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10							
3	6	9	12								
4	8										
5							40				
6											
7					42						
8								72			
9											
10											
11											
12											

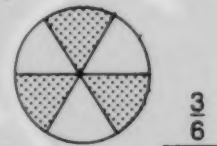
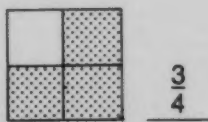
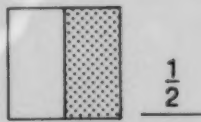
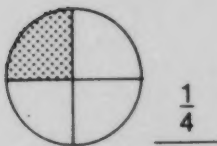
Writing Fractions

A fraction is two numbers that show a part of some whole. Three dimes are three of the ten equal parts of one dollar. Three dimes are $\frac{3}{10}$ or three tenths of a dollar. Five ounces are five of the sixteen equal parts of one pound. Five ounces are $\frac{5}{16}$ or five sixteenths of a pound.

The top number of a fraction is called the **numerator**. The numerator tells you how many parts you have. The bottom number is called the **denominator**. The denominator tells you how many parts are in the whole.

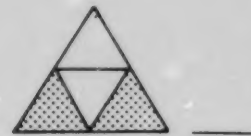
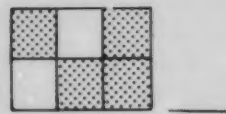
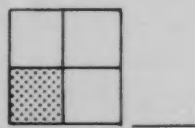
In the fraction $\frac{3}{10}$, 3 is the numerator and 10 is the denominator. You have 3 parts. The whole has 10 parts. In the fraction $\frac{5}{16}$, 5 is the numerator and 16 is the denominator. You have 5 parts. The whole has 16 parts.

The pictures below are partly shaded. The fraction beside each picture tells what part of the picture is shaded. The numerator (top number) tells how many parts are shaded. The denominator (bottom number) tells how many parts are in the whole picture.



For each picture write a fraction that tells what part of the picture is shaded.

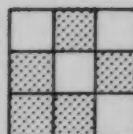
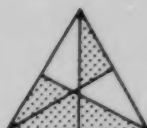
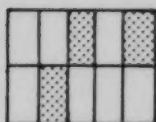
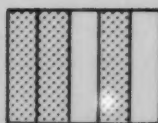
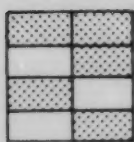
1.



WHAT IS A FRACTION?

Basic Skills with Math
Cambridge

2.



It is easy to write a fraction from words. First choose a denominator that tells the number of parts in the whole. Then choose a numerator that tells how many parts you have.

EXAMPLE: There are 12 inches in a foot. 11 inches are what fraction of a foot?

$$\frac{11}{12}$$

Step 1. Choose the denominator. 12 tells how many parts are in one whole foot. 12 is the denominator.

Step 2. Choose the numerator. 11 tells how many parts you have. 11 is the numerator.

Write a fraction for each problem.

4. There are 4 quarts in a gallon. Three quarts are what fraction of a gallon?
5. There are 10 dimes in a dollar. 7 dimes are what fraction of a dollar?
6. There are 60 minutes in an hour. 21 minutes are what fraction of an hour?
7. There are 1000 grams in a kilogram. 127 grams are what fraction of a kilogram?
8. There are 36 inches in a yard. 19 inches are what fraction of a yard?
9. There are 7 days in a week. Two days are what fraction of a week?

Name _____

Score _____

3

Add.

$$\begin{array}{r} 1. \quad \frac{1}{9} \\ + \frac{4}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad \frac{0}{4} \\ + \frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad \frac{2}{11} \\ + \frac{0}{11} \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad \frac{3}{10} \\ + \frac{4}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad \frac{2}{7} \\ + \frac{4}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad \frac{2}{6} \\ + \frac{3}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \frac{1}{3} \\ + \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad \frac{2}{5} \\ + \frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad \frac{4}{6} \\ + \frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad \frac{1}{8} \\ + \frac{2}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad \frac{2}{10} \\ + \frac{1}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad \frac{2}{9} \\ + \frac{3}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad \frac{2}{7} \\ + \frac{3}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad \frac{5}{8} \\ + \frac{2}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad \frac{2}{9} \\ + \frac{6}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad \frac{3}{7} \\ + \frac{3}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad \frac{0}{3} \\ + \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad \frac{0}{5} \\ + \frac{2}{5} \\ \hline \end{array}$$

Subtract.

$$\begin{array}{r} 19. \quad \frac{1}{8} \\ - \frac{2}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad \frac{3}{4} \\ - \frac{2}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad \frac{4}{9} \\ - \frac{0}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad \frac{6}{7} \\ - \frac{2}{7} \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad \frac{4}{6} \\ - \frac{3}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 29. \quad \frac{2}{3} \\ - \frac{2}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad \frac{9}{10} \\ - \frac{2}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad \frac{5}{6} \\ - \frac{5}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad \frac{7}{9} \\ - \frac{3}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad \frac{7}{11} \\ - \frac{3}{11} \\ \hline \end{array}$$

$$\begin{array}{r} 28. \quad \frac{9}{12} \\ - \frac{4}{12} \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad \frac{9}{11} \\ - \frac{2}{11} \\ \hline \end{array}$$

ANSWERS • 43

1. $\frac{5}{9}$ 2. $\frac{2}{3}$ 3. $\frac{5}{7}$ 4. $\frac{3}{4}$ 5. $\frac{3}{5}$ 6. $\frac{7}{6}$ 7. $\frac{2}{11}$ 8. $\frac{5}{6}$ 9. $\frac{8}{9}$ 10. $\frac{7}{10}$ 11. $\frac{3}{9}$ 12. $\frac{6}{7}$
13. $\frac{6}{7}$ 14. $\frac{3}{10}$ 15. $\frac{1}{3}$ 16. $\frac{5}{6}$ 17. $\frac{5}{9}$ 18. $\frac{2}{5}$ 19. $\frac{5}{8}$ 20. $\frac{7}{10}$ 21. $\frac{1}{4}$ 22. 0 23. $\frac{4}{9}$
24. $\frac{4}{9}$ 25. $\frac{4}{7}$ 26. $\frac{4}{11}$ 27. $\frac{1}{6}$ 28. $\frac{5}{12}$ 29. 0 30. $\frac{7}{11}$

Name _____

Score _____



Multiply.

1. $\frac{1}{5} \times 45$

5. $\frac{1}{5} \times 35$

9. $\frac{1}{4} \times \frac{3}{5}$

13. $\frac{1}{4} \times \frac{1}{2}$

2. $7 \times \frac{1}{3}$

6. $9 \times \frac{4}{5}$

10. $\frac{2}{3} \times \frac{5}{7}$

14. $\frac{5}{6} \times \frac{5}{11}$

3. $9 \times \frac{2}{3}$

7. $6 \times \frac{1}{3}$

11. $\frac{1}{7} \times \frac{2}{9}$

15. $\frac{3}{7} \times \frac{3}{4}$

4. $\frac{3}{5} \times 4$

8. $16 \times \frac{3}{8}$

12. $\frac{1}{5} \times \frac{3}{5}$

16. $\frac{2}{9} \times \frac{4}{5}$

Solve.

17. Curt and Charlie were working in the garden. Curt raked $\frac{3}{4}$ of the garden.

Charlie then planted corn in $\frac{3}{5}$ of the raked part. What part of the garden did Charlie plant with corn?

18. Curt bought 7 bags of fertilizer. He used $\frac{3}{4}$ of them. How many bags of fertilizer did he use?

19. The distance from the garden to the barn is $\frac{2}{7}$ kilometer. Curt walked this distance 15 times. How many kilometers did he walk between the barn and garden?

ANSWERS • 60

1. 9 2. $2\frac{1}{3}$ 3. 6 4. $2\frac{2}{5}$ 5. 7 6. $7\frac{1}{5}$ 7. 2 8. 6 9. $\frac{3}{20}$ 10. $\frac{10}{27}$ 11. $\frac{2}{63}$ 12. $\frac{3}{25}$
13. $\frac{1}{8}$ 14. $\frac{25}{66}$ 15. $\frac{9}{28}$ 16. $\frac{8}{45}$ 17. $\frac{9}{20}$ of the garden 18. $5\frac{1}{4}$ bags 19. $4\frac{2}{7}$ kilometers

Dividing Fractions Applications

These problems give you a chance to apply your division of fractions skills. There is no key word like *of* to tell you to divide. But some types of problems usually mean to divide.

For example, you may be given the cost of several things and be asked to find the cost of one thing.

EXAMPLE: $1\frac{3}{4}$ pounds of apples cost \$1.19. Find the cost of one pound of apples.

To find the cost of one pound, divide the cost of $1\frac{3}{4}$ pounds, \$1.19, by $1\frac{3}{4}$. Remember that **the thing being divided must come first**. In this problem the money is being divided up into smaller amounts. The money comes first.

$$\$1.19 \div 1\frac{3}{4} = \frac{1.19}{1} \div \frac{7}{4} = \frac{1.19}{1} \times \frac{4}{7} = \$0.68$$

In money problems be sure to keep the point that separates dollars and cents.

The words **cutting**, **sharing**, and **splitting** usually mean to divide.

Give each answer the correct label such as yards or cents.

1. Harriet paid \$4.05 for $2\frac{1}{4}$ pounds of ground beef. Find the cost of one pound of beef.
2. Carl wants to split a board $48\frac{3}{4}$ inches long into 6 equal pieces. How long will each piece be?
3. Jane is filling cans with $\frac{1}{2}$ pound of string beans. How many cans can she fill with 11 pounds of string beans?

Multiplying Decimals Applications

These problems give you a chance to apply your multiplication of decimals skills. Give every answer the correct label such as grams or dollars. **Answers are on page 172.**

1. Jeff weighs 180 pounds. One pounds equals 0.45 kilogram. What is Jeff's weight in kilograms?
2. Adrienne works overtime for \$8.60 an hour. Last week she worked 7.5 hours overtime. How much did she make for overtime last week?
3. Tom's car gets an average of 14.5 miles of city driving with one gallon of gas. How many miles of driving can he get in the city with 12.4 gallons of gas?
4. Tom pays \$1.35 for a gallon of gas. How much does he have to pay for 12.4 gallons?
5. Ruby bought chicken for \$1.40 a pound. How much did she pay for 2.3 pounds of chicken?

Dividing Decimals Applications

These problems give you a chance to apply your division of decimals skills. Remember that **the number being divided goes inside the $\overline{)}$ sign.**

EXAMPLE: Linda bought 3.5 pounds of chicken for \$3.43.
Find the cost of one pound of chicken.

$3.5 \overline{) \$3.43}$ **Step 1.** Divide the price of several pounds (\$3.43) by the number of pounds (3.5). In this problem the money is being divided into parts. Put the money inside the $\overline{)}$ sign.

$3.5 \overline{) \$3.43}$ **Step 2.** Move the decimal point in the divisor one place to the right to make it a whole number.

$3.5 \overline{) \$3.430}$ **Step 3.** Also move the decimal point in the dividend one place to the right.

$$\begin{array}{r} \$ \quad .98 \\ 3.5 \overline{) \$3.430} \\ \underline{3 \ 1 \ 5} \\ 2 \ 80 \\ \underline{2 \ 80} \end{array}$$
 Step 4. Divide and bring the decimal point up into the answer above its new position. Put an extra zero at the right of 34.3 to give the answer the two decimal places for money.

Give each answer the correct label such as \$ or meters. Answers are on page 173.

1. Allen bought 5.5 feet of lumber for \$14.85.
What was the price of one foot of lumber?
2. Jake is a plumber. He wants to cut a piece of pipe 2.52 meters long into 4 equal pieces. How long will each piece be?
3. There are 2.2 pounds in one kilogram.
Verva weighs 154 pounds. What is her weight in kilograms?

Writing Percents as Decimals

7

Remember: You convert a percent to a decimal by dividing by 100. (Hint: To divide by 100, move the decimal point two places to the left.)

EXAMPLES $36\% = .36$

$100\% = 1.00$, or 1

$3.6\% = .036$

$\frac{1}{2}\% = .5\% = .005$

$8\% = .08$

$.19\% = .0019$

Convert to decimals.

1. $60\% =$ _____

2. $18\% =$ _____

3. $5\% =$ _____

4. $92\% =$ _____

5. $75\% =$ _____

6. $7\% =$ _____

7. $15\% =$ _____

8. $300\% =$ _____

9. $2\% =$ _____

10. $5000\% =$ _____

11. $68\% =$ _____

12. $115\% =$ _____

Writing Fractions as Percents

Remember: First change the fraction to a decimal by division. Round off to hundredths. Then change the decimal to a percent by moving the decimal point two places to the right.

EXAMPLES $\frac{1}{4} \rightarrow 4 \overline{)1.00} .25 = 25\%$

$\frac{2}{3} \rightarrow 3 \overline{)2.000} .666 \rightarrow .67 = 67\%$

$$\begin{array}{r} 18 \\ 3 \overline{)2.000} \\ \underline{18} \\ 20 \\ \underline{18} \\ 20 \end{array}$$

Write each fraction as a percent.

1. $\frac{3}{4} =$ _____

2. $\frac{6}{10} =$ _____

3. $\frac{1}{5} =$ _____

4. $\frac{1}{2} =$ _____

5. $\frac{2}{5} =$ _____

6. $\frac{3}{8} =$ _____

7. $\frac{63}{100} =$ _____

8. $\frac{7}{20} =$ _____

9. $\frac{8}{25} =$ _____

Writing Decimals as Percents

Remember: To convert a decimal to a percent, move the decimal point two places to the right. Put a decimal point at the right of a whole number.

EXAMPLES $.29 = 29\%$

$3.6 = 360\%$

$.003 = .3\%$

$.08 = 8\%$

$.219 = 21.9\%$

$7 = 700\%$

Convert each decimal to a percent.

1. $3.6 = \underline{\hspace{2cm}}$

2. $.01 = \underline{\hspace{2cm}}$

3. $.85 = \underline{\hspace{2cm}}$

4. $.124 = \underline{\hspace{2cm}}$

5. $38 = \underline{\hspace{2cm}}$

6. $.9 = \underline{\hspace{2cm}}$

7. $.31 = \underline{\hspace{2cm}}$

8. $.029 = \underline{\hspace{2cm}}$

9. $6.32 = \underline{\hspace{2cm}}$

10. $7 = \underline{\hspace{2cm}}$

11. $.0035 = \underline{\hspace{2cm}}$

12. $.6 = \underline{\hspace{2cm}}$

Writing Percents as Fractions

Remember: Percent means hundredths.

EXAMPLES $37\% = \frac{37}{100}$

$48\% = \frac{48}{100} = \frac{12}{25}$

$250\% = \frac{250}{100} = 2\frac{50}{100} = 2\frac{1}{2}$

$\frac{1}{2}\% = \frac{\frac{1}{2}}{100} = \frac{1}{2} \div 100 = \frac{1}{200}$

$33\frac{1}{3}\% = \frac{100}{3} \div 100 = \frac{100}{300} = \frac{1}{3}$

Write each percent as a fraction.

1. $35\% = \underline{\hspace{2cm}}$

2. $10\% = \underline{\hspace{2cm}}$

3. $70\% = \underline{\hspace{2cm}}$

4. $67\% = \underline{\hspace{2cm}}$

5. $13\% = \underline{\hspace{2cm}}$

6. $71\% = \underline{\hspace{2cm}}$

7. $112\% = \underline{\hspace{2cm}}$

8. $98\% = \underline{\hspace{2cm}}$

9. $41\% = \underline{\hspace{2cm}}$

10. $12\% = \underline{\hspace{2cm}}$

11. $2\% = \underline{\hspace{2cm}}$

12. $125\% = \underline{\hspace{2cm}}$

Finding Percents Applications

8

These problems give you a chance to apply your skills in finding a percent of a number. When you find a percent of a number, you find a part of that number. The answer will have the same label as the number in the problem. For example, if you find a percent of \$35, the answer will be measured in dollars.

1. The town of Midvale spends 50% of its budget on education. Last year their budget for the year was \$3,500,000. How much did they spend on education?
2. Rita took a math test with 80 problems. She got 75% of the problems right. How many problems did she get right?
3. George and Margaret want to buy a house for \$36,500. They have to make a down payment of 15%. How much is the down payment for the house?
4. The Mayflower Theater holds 300 people. Friday 85% of the seats were filled. How many people were at the theater on Friday?
5. Colette owes \$160 on her credit card. In a month she has to pay a fee of 1.5% of the amount she owes. Find the amount of the fee on the \$180.
6. Richard had 60 tickets to sell to his club's dance. In two days he sold $83\frac{1}{3}\%$ of the tickets. How many tickets did he sell during those two days?
7. The sales tax in Steve's state is 8%. Steve bought a shirt for \$14.50. How much was the sales tax on the shirt?

1. \$1,750,000
2. 60 problems
3. \$5,475
4. 255 people
5. \$2.70
6. 50 tickets
7. \$1.16

Finding a Percent of a Number

To find a percent of a number, change the percent to a decimal or to a fraction and multiply.

EXAMPLE: Find 25% of 80.

Method 1.

Step 1. Change the percent to a decimal.

$$25\% = .25$$

Step 2. Multiply.

$$\begin{array}{r} 80 \\ \times .25 \\ \hline 400 \\ 160 \\ \hline 20.00 \end{array}$$

Method 2.

Step 1. Change the percent to a fraction.

$$25\% = \frac{1}{4}$$

Step 2. Multiply.

$$\frac{1}{4} \times \frac{20}{1} = \frac{20}{1} = 20$$

Use the method that you find easier to work the following.

1. 5% of 120 =

7% of 965 =

10% of 780 =

2. 20% of 36 =

15% of 50 =

40% of 60 =

3. 75% of 680 =

80% of 500 =

50% of 418 =

4. 35% of 480 =

65% of 620 =

85% of 940 =

5. 2.6% of 390 =

.8% of 56 =

1.8% of 753 =

Capitalizing Titles Before Names

The Yearbook Series
ESP

1

THE RULE

Titles in front of names are capitalized.
Titles following names are not capitalized.



I am General Maxwell Hall.

INSTRUCTIONS

Underline each title that should be capitalized.

EXAMPLES

a. She asked for mrs. Lewis.
b. I am father Roberts.

c. Jane is the treasurer.
d. Wasn't that uncle Ben?

1. This is judge Randall.
2. Alex is the captain.
3. He was a king.
4. I met prince Charles.
5. Talk to mr. Landers.
6. Jason is a lieutenant.
7. Sam Davis is our doctor.
8. Go to the principal's office.
9. Will mrs. Williams stand?
10. We watched general Cate.
11. There is president Carter.
12. I am waiting for ms. Kelly.
13. Wanda is his secretary.
14. Jill looks like a princess.
15. May I introduce mrs. Porter?
16. We visited rabbi Benson.
17. Marshall King is the dean.
18. Let's ask bishop Thomas.
19. May I present king George III?
20. There goes father Dannon.
21. The judge is waiting.
22. He is sir Winston.
23. Eric Matthews is our principal.
24. The painting is of queen Anne.
25. My aunt is the treasurer.
26. Where is secretary Baker?
27. She introduced the judge.
28. Everyone voted for treasurer.
29. Have you seen captain Danner?
30. Are you mr. Martin?
31. Sheila looks like mrs. Cookson.
32. James is a general.
33. Our visitor was rev. Danforth.
34. Mellie is vice-president.
35. It's lieutenant Spears.
36. Say hello to uncle Paul.
37. You are the captain.
38. We'll tell judge Frank.
39. His dad is general Tally.
40. Bill is only the lieutenant.
41. We studied about king Louis V.
42. Is aunt Edna there?
43. That was rabbi Stevens.
44. He was the dean.
45. We need to see mr. Weston.
46. Has general Kent arrived?
47. Joanie wants to be a doctor.
48. What did you tell your uncle?
49. Mark Fields became a lieutenant.
50. I wrote to dr. Smith.

* Titles _____ names are capitalized.
Titles _____ names are not capitalized.

BACK PAGE Write five sentences, each using a title before a name.
EXERCISES

NUMBER
MISSED

Words in a Series—the Comma

THE RULE Commas are used to separate words in a series. (A comma follows the word before the conjunction.)

INSTRUCTIONS

Place commas where needed.



I need bread, milk, and eggs.

EXAMPLES

- a. Bob, Daniel, Mickey, and Peter stayed after school.
- b. At the zoo we saw camels, zebras, elephants, and lions.

1. I am taking science, English, math, and history.
2. Oranges apples and pears were on the table.
3. She invited Harold Brenda Sarah and George.
4. You have two dogs six cats and one green turtle.
5. Mark brought his pencil paper and notebook.
6. Dogs cats and children are not allowed in here.
7. Richard Michael and Phillip were responsible for this.
8. I have talked to doctors lawyers and businessmen.
9. California Nevada and Arizona are western states.
10. Kenneth ate sandwiches potato chips and cookies.
11. My favorite sports are tennis baseball and swimming.
12. Martha Maxine Mary and Maureen are sisters.

Separating Compound Sentences — the Comma

THE RULE

A comma is used often before the conjunction which connects a compound sentence.



1. Carrie is going to the show but Sol will stay at home.
2. The trip was canceled and everyone was very disappointed.
3. She was an hour late for dinner and her parents waited impatiently.
4. My pen ran out of ink but Sally loaned me another one.
5. You may go home now on the bus or you may wait until four o'clock.
6. My brother is my friend but my sister hates me.
7. The air felt chilly but the water was warm enough for swimming.
8. His eyes were a light blue and his hair was a dark brown.
9. Karen studied her science and Gerald studied his history.
10. Alice invited several of her friends to the party but no one came.

EXERCISE 3: Using Semicolons

Read each sentence. See if the semicolons are used correctly. If they are not used correctly, rewrite the sentence. Put in any semicolons that are missing. Take out any semicolons that should not be used.

1. Carlos agreed to drive; on Monday, Wednesday, and Friday.
2. She's usually on time, however, she's late today.
3. Harvey wanted ice cream however, he didn't get any.
4. My favorite foods are; fudge, lasagna, and pretzels.
5. The car wouldn't start it was out of gas.
6. That dog looks pretty friendly, still, it might bite.
7. There are lots of things to do, for example, we could bowl.
8. Jack goes to the gym every day, he's in great shape.
9. I bought nails, screws, and glue; at the store.
10. Stu brought Mary to the party, they go everywhere together.

Punctuation Inside Quotation Marks

THE RULE When commas, periods, and question marks are parts of direct quotations, they are placed inside quotation marks.

INSTRUCTIONS

Place punctuation and quotation marks where needed.



"Yes, this is Mrs. Carson," she replied.

EXAMPLES

- a. "Is he your brother or just a friend?" asked the man.
- b. "I have been trying to call you," said Mr. Baxter.

1. "I'll trade you a piece of gum for a pretzel," said Kenneth.
2. This homework is easy, but there's too much Dan complained.
3. If he doesn't come soon, we're leaving said Miss Wilson.
4. He asked, Are you sure you didn't hear or see anyone
5. Gail cried, If you're our friend, you'll help us escape
6. We helped Bob paint the fence and the barn answered Donald.
7. Susan whispered, Don't talk too loud; or Sam will hear us
8. Would you like to come inside and wait for him asked Mom.
9. Mike warned, If I catch you here again, I'll call the police
10. The woman repeated, I never saw him enter or leave the house
11. Dennis asked, How long have you known about the plans
12. Please don't tell my mother or father about it she pleaded.

Each of the following groups of words is either a complete sentence or a fragment. If the group is a complete sentence, write "C" for complete in the space. If it is a fragment, write "F" for fragment. The first two have been done.

- | | |
|---|-------------------|
| 1. On Monday night at Sam's house. | <u>F</u> |
| 2. Bill slept poorly. | <u>C</u> |
| 3. Be patient. | <u> </u> |
| 4. Since France is so far from England. | <u> </u> |
| 5. Because so many people pay bills late. | <u> </u> |
| 6. How fast can you go? | <u> </u> |
| 7. Winning is not everything. | <u> </u> |
| 8. Selma dropped a rubber band. | <u> </u> |
| 9. We will be there tomorrow. | <u> </u> |
| 10. Waiting on line at the unemployment office. | <u> </u> |

Exercise 13: PARALLEL STRUCTURE WITHIN SENTENCES

The word **parallel**, when used to describe sentence structure, means that similar parts of a sentence have the same form. The following example illustrates errors resulting from a lack of parallel structure.

NOT PARALLEL: Eating, listening to music, and *to be* with my friends are my favorite pastimes.

PARALLEL: Eating, listening to music, and *being* with my friends are my favorite pastimes.

Text pages 160-161.

Directions: Correct each of the following sentences by using parallel structure to rewrite the underlined parts of the sentence.

Example: *Juan is learning to speak, reading, and writing English all at once.*

Juan is learning to speak, read, and write English all at once.

1. What you earn, saving, and spending should all be consistent.
 What you earn, _____, and _____ should all be consistent.
2. Michael loved Ruth for her looks, she had a good sense of humor, and she was intelligent.
 Michael loved Ruth for her looks, _____, and _____.
3. The keys to happiness are to relax, being content, and having faith in yourself.
 The keys to happiness are to relax, _____, and _____ in yourself.
4. You must avoid bending, to fold, or to mutilate these cards.
 You must avoid bending, _____, or _____ these cards.
5. The camera comes with three lenses and you get a flash attachment.
 The camera comes with three lenses and _____.
6. I'm looking forward to meeting you and to get to know you better.
 I'm looking forward to meeting you and _____ better.
7. To write your letters by hand is slower than typing them.
 To write your letters by hand is slower than _____ them.
8. Riding a bike and to swim are two good ways to exercise.
 Riding a bike and _____ are two good ways to exercise.
9. I never heard anyone speak more beautifully or to convince people better.
 I never heard anyone speak more beautifully or _____.

Subject-Verb Agreement

THE RULE

Singular subjects take singular verbs.
Plural subjects take plural verbs.



One eye looks.

Two eyes look.

INSTRUCTIONS

- A. Underline the subject which completes each sentence.
B. Underline the verb which completes each sentence.

EXAMPLES

- A. a. The (kitten, kittens) misses her.
b. (Balloon, balloons) expand.
B. c. The exercise (is, are) easy.
d. The men (paint, paints).

- A
1. The (man, men) wants a raise.
 2. The (result, results) were posted.
 3. My (hand, hands) hurts.
 4. (Cat, Cats) love milk.
 5. The (book, books) were delivered.
 6. The (girl, girls) are beautiful.
 7. (He, They) pledges support.
 8. The (window, windows) were open.
 9. (Mermaid, Mermaids) swim.
 10. The (river, rivers) were flooded.
 11. The (trick, tricks) are fake.
 12. The (grape, grapes) is sour.
 13. The (flower, flowers) are blooming.
 14. The (party, parties) was yesterday.
 15. The (sign, signs) is red and green.
 16. The (storm, storms) is over.
 17. (Comedian, Comedians) are funny people.
 18. The (noise, noises) frighten me.
 19. The (dog, dogs) barks all the time.
 20. The (church, churches) was built in 1880.
 21. The (bike, bikes) looks terrific.
 22. The (attorney, attorneys) defends people.
 23. The (store, stores) opens at noon.
 24. My (friend, friends) knows everything.
- B
25. John (talks, talk) too much.
 26. We (travels, travel).
 27. She (is, are) a volunteer.
 28. Birds (flies, fly).
 29. The members (was, were) late.
 30. Rabbits (likes, like) carrots.
 31. Dad (works, work) for him.
 32. The students (gains, gain) confidence.
 33. It (solves, solve) our problem.
 34. These hats (looks, look) silly.
 35. The laws (is, are) unfair.
 36. It (eliminates, eliminate) mistakes.
 37. The monkey (steals, steal) bananas.
 38. These cars (needs, need) care.
 39. It (takes, take) time.
 40. Water (evaporates, evaporate).
 41. The solution (is, are) obvious.
 42. The trains (passes, pass) here regularly.
 43. I (admires, admire) your courage.
 44. They (is, are) my friends.
 45. He (drives, drive) a Ford.
 46. Uncle Joe (hates, hate) liver cheese.
 47. The children (was, were) asleep.
 48. The ideas (sounds, sound) strange.



Singular subjects take _____. Plural subjects take _____.

BACK PAGE Write five sentences containing singular subjects and
EXERCISES verbs and five containing plural subjects and verbs.

NUMBER
MISSED

B. INFORMATION

A simple subject agrees with the simple predicate, in person and number. The following indefinite pronouns are always singular and require a singular predicate:

each	no one	somebody
either	everyone	anybody
neither	anyone	nobody
one	someone	everybody

Examples: One of the children was crying.
Nobody has to leave.
One of you is right.

Note that the third person singular forms "is", "was", "has" all end in "s". So do all third person singular forms of verbs in the present tense.

ACTIVITIES

Draw a line under the correct word in each sentence.

1. One of the members (is are) absent.
2. Neither of them (have has) helped me.
3. Either one or the other (comes come).
4. Any one of the member (has have) a chance to win.
5. One of those pupils never (study studies).
6. Either the man or his wife (was were) responsible.
7. Neither she nor your father (agree agrees) with you.
8. Everyone (was were) there at an early hour.
9. Each of the boys (have has) done well.
10. (Is Are) neither of you going?
11. Someone among the sailors (was were) whistling.
12. Everybody in the class (has have) finished.
13. Nobody in the glee club (want wants) to sing it.
14. No one of the girls (care cares) to stay here.

Homonyms are words that sound the same but are spelled differently and have different meanings. The homonyms in each sentence are underlined. In each space, write the word that answers the question. The first one has been done.

1. Would you eat a beat or a beet? beet
2. Do you watch a TV program at eight or at ate? _____
3. When you listen to music do you here or hear? _____
4. Is a pie crust made from doe or dough? _____
5. Does a thief steel or steal? _____
6. Would a ship sail on a sea or a see? _____
7. Does a mink have fir or fur? _____
8. Would you climb up the stairs or the stares? _____
9. Would you be stung by a bee or a be? _____
10. If you are taller, have you groan or grown? _____

Using *Two*, *Too*, and *To* Correctly

Remember:

Two is a number.

Too means *also*, *besides*. *Too* also means *more than enough*.

To means *toward*. *To* is also used with such words as *be*, *sing*, *play*, and other action words.

A. Fill in the blanks with *two*, *too*, or *to*:

1. Ben is tired get up early.
2. Always try do your best.
3. It is far for us to walk after school.
4. Do not park near the fire plug.
5. Isn't it cold go fishing?
6. She is going knit sweaters.
7. Don't you want go, ...?
8. Leonard has A's on his card this time.
9. Nancy has A's, ...
10. We took hours go to the lake.

B. Write two sentences of your own in which you use *two*:

1.
2.

C. Write three sentences of your own in which you use *too*:

1.
2.
3.

D. Write three sentences of your own in which you use *to*:

1.
2.
3.

Score:

Tips for Better Spelling

1. **Keep a spelling notebook.** Write words that you have trouble spelling in a notebook. Underline the part of the word that gives you the most trouble.

February

grammar

separate

vegetable

Write only the *correct* spellings in the notebook. (You can check the correct spelling of any word by using a dictionary.) Review the list of words whenever you have some spare time. If you review the words frequently and write them down often, you will find it easier to spell the words correctly.

2. **Spell words part by part.** Often, you can spell a long word better if you break the word into parts. For instance, look at the word *misspelling*.

mis-spell-ing

By breaking the word into smaller parts, the word becomes easier to spell.

3. **Learn to spell the common word parts that are placed at the beginning or added to the end of a word.** The word *misspelling* is formed by placing *mis-* before the word *spell* and adding *-ing* after it. Word parts that are placed at the beginning of a word are called **prefixes**. Word parts that are added to the end of a word are called **suffixes**.
4. **Learn and use the spelling rules.** Spelling in English is hard, but there are some rules that can make spelling easier for you. The rules for forming noun plurals and for forming adverbs are important. Review those rules before you study the spelling rules for prefixes and suffixes.

RULES FOR PREFIXES AND SUFFIXES

Rule 1: When a prefix is placed before a root word, neither the spelling of the prefix nor the spelling of the root word changes.

un- + clear = unclear
 (prefix) (root)

Other Spelling Rules

Rule 6: In words that have the letters *i* and *e* together, the *i* usually comes before the *e*.

believe relief grief

However, the *e* comes before the *i* when the two letters follow the letter *c*.

deceive receive ceiling

Also, the *e* comes before the *i* when the letters have an *ay* sound.

neighbor weigh veil

Here are some exceptions to the rules for *i* and *e*:

ancient conscience science species
either neither foreign forfeit
leisure seize height heir
counterfeit sovereign weird

Rule 7: For words that end in the "seed" sound, only one word is spelled *-sede*:

supersede

Only three words are spelled *-ceed*:

exceed proceed succeed

All other words are spelled *-cede*:

concede precede recede accede

EXERCISE 5

DIRECTIONS: From each set of words, choose the one word that is spelled incorrectly.

- | | | |
|----------------|---------------|---------------|
| 1. (1) receive | 2. (1) excede | 3. (1) weight |
| (2) deceive | (2) recede | (2) height |
| (3) speceis | (3) secede | (3) freight |
| (4) ceiling | (4) supersede | (4) anceint |

EXERCISE 3

1. drop + *-ed* = dropped (The word drop has one syllable. The single consonant *p* comes after the single vowel *o*. The suffix begins with a vowel. Therefore, the final *p* is doubled.)
2. stoop + *-ed* = stooped (The word stoop has only one syllable, but the last consonant follows a double vowel (*oo*). Therefore, the final *p* is *not* doubled.)
3. prefer + *-able* = preferable (In the word prefer, the stress is on the last syllable (pre-FER). However, when the *-able* suffix is added, the stress moves to the first syllable (PREF-er-a-ble). Therefore, the final *r* is *not* doubled.)
4. appeal + *-ing* = appealing (The final consonant comes after two vowels (*ea*). Therefore, the final *l* is *not* doubled.)
5. cool + *-er* = cooler (The final consonant comes after a double vowel (*oo*). The final consonant is *not* doubled.)

EXERCISE 4

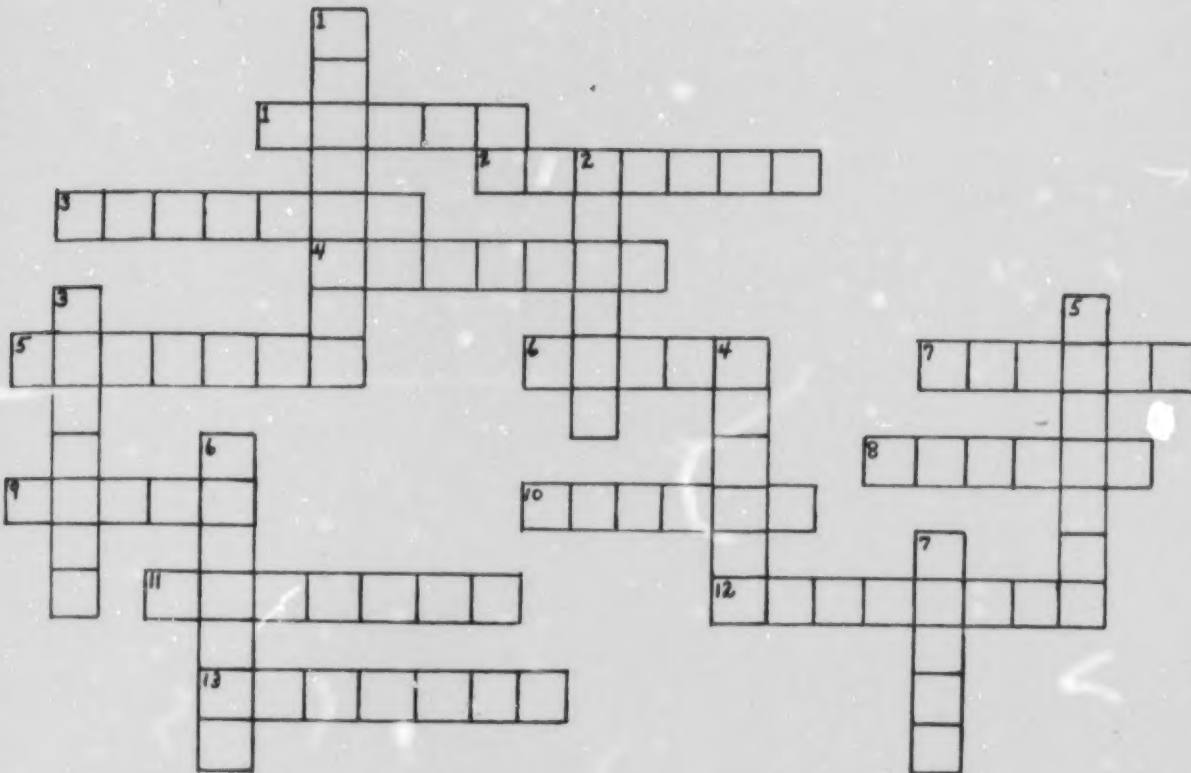
1. display + *-ed* = displayed (Do not change the *y* to *i* if the *y* comes right after a vowel.)
2. carry + *-ed* = carried (Change the *y* to *i* before adding the suffix if the *y* comes after a consonant and the suffix begins with any letter except *i*.)
3. rely + *-able* = reliable (The letter *y* follows the consonant *l*. The suffix begins with *a*. Therefore, the *y* is changed to *i*.)
4. cry + *-ing* = crying (The *y* is not changed because the suffix begins with *i*.)
5. cry + *-ed* = cried (The *y* follows a consonant. The suffix does not begin with *i*. Therefore, the *y* is changed to *i*.)

EXERCISE 5

1. (3) *Speceis* should be species. The word species is an exception to the *i* and *e* rules.
2. (1) *Excede* should be exceed. The word exceed is one of three "seed" words that are spelled *-ceed*.
3. (4) *Anceint* should be ancient. The word ancient is an exception to the *i* and *e* rules.
4. (3) *Foriegn* should be foreign. The word foreign is an exception to the *i* and *e* rules.
5. (3) *Preceed* should be precede. The word precede is *not* one of the three "seed" words that end with *-ceed*.

EXERCISE 6

Complete the crossword puzzle below using the ie-ei spelling words for this unit. The clues to the puzzle are found on the next page.



CROSSWORD PUZZLE CLUES

ACROSS

1. Opposite of nephew
2. Born in another country;
strange
3. Cargo; goods carried on trains
and trucks
4. To accept something as true or
real
5. Opposite of either
6. To grab quickly or forcefully
7. To be sad; mourn
8. To feel comfort
9. Surrounding of a town by army
trying to capture it
10. Tallness of a person
11. Free time
12. To postpone or give rest from a duty
13. Person ill in a hospital; calm
person

DOWN

1. Lives next door or near you
2. To study all over again
3. To get something from someone;
opposite of give
4. Opposite of neither
5. To mislead someone
6. Piece of paper showing you
paid for something
7. To give way to; to give in to

UNDERSTANDING PARAGRAPHS

10

EXERCISE 4

DIRECTIONS: Read each paragraph and answer the questions that follow it. For each question, choose the one best answer.

¹Rick "The Hammer" Homestock successfully defended his boxing title last night by knocking out Wally Jones in the fifth round. ²Homestock won the fight by hitting Jones with a combination of punches that sent Jones sprawling to the canvas. ³The fight was stopped before the referee had reached the count of ten. ⁴The fight was Homestock's first since April of last year. ⁵He had beaten Crunch Hogan to win the title. ⁶After his fight with Hogan, Homestock sustained a broken hand.

1. To combine sentences 4 and 5, last year. He had beaten should be changed to
 - (1) last year, since he had beaten
 - (2) last year, when he had beaten
 - (3) last year, having beat
 - (4) last year; then he had beaten
 - (5) last year, where he had beaten
2. If the paragraph were divided into two paragraphs, which of the following sentences would best start the second paragraph?
 - (1) Sentence 2
 - (2) Sentence 3
 - (3) Sentence 4
 - (4) Sentence 5
 - (5) Sentence 6

¹The Power-all Electric Company has submitted a request for a \$72.1 million rate hike for its residential customers. ²The company claims that rising fuel costs have made the rate hike necessary. ³In the last six months, the cost of the company's fuel has gone up by 15 percent. ⁴This is according to a representative of the company. ⁵Consumer groups are planning to protest the proposed rate increases. ⁶The consumer groups feel that the company does not need another rate hike. ⁷Instead, the groups argue that electricity prices should be cut.

3. To combine sentences 3 and 4, percent. This is according to should be changed to
 - (1) percent, and this is according to
 - (2) percent, thus according to
 - (3) percent; according to
 - (4) percent, according to
 - (5) percent; this according to

LOGIC AND ORGANIZATION

4. To combine sentences 6 and 7, rate hike. Instead, should be changed to
- (1) rate hike, instead,
 - (2) rate hike; instead,
 - (3) rate hike, but instead
 - (4) rate hike; therefore,
 - (5) rate hike, and instead
5. If the paragraph were divided into two paragraphs, which of the following sentences would best start the second paragraph?
- (1) Sentence 2
 - (2) Sentence 3
 - (3) Sentence 4
 - (4) Sentence 5
 - (5) Sentence 6

EXERCISE 4

1. (2) last year. He had beaten should be changed to last year, when he had beaten. The link between the sentences should show that the fight with Hogan had taken place last April. Answer choice 2 shows that link.
2. (3) The new paragraph should begin with sentence 4. The first three sentences are about Homestock's fight with Jones. Sentences 4, 5, and 6 are about his fight with Hogan. They should be the second paragraph.
3. (4) percent. This is according to should be changed to percent, according to. Answer choice 4 is the best way to combine the two sentences. Choice 1 is too awkward. Choice 2 has an unneeded connecting word (thus). Choices 3 and 5 have semicolons that are used incorrectly.
4. (2) rate hike. Instead, should be changed to rate hike; instead. The word instead shows the right link between the two sentences. When instead connects two complete sentences in a compound, a semicolon should come before it and a comma after it.
5. (4) Sentence 5 should start the new paragraph. The first four sentences are about the company's request for a rate hike. Sentences 5, 6, and 7 are about the consumer groups' reactions to the rate hike.

Passage 2

When a cell divides in two parts, two new cells are formed. This process is called cell division or mitosis. In the process of mitosis, a mother cell divides in two, forming two daughter cells. Each daughter cell is half of the mother cell; therefore, the next generation really contains part of the old generation. Even a human being is produced by the division of one cell that has been formed from the union of a cell from the mother and a cell from the father. In this way, every cell in the human body contains a tiny bit of matter that once was a part of the father and a tiny bit that was a part of the mother.

Passage 3

Many Americans do not realize it, but we do not elect our president directly. When we cast our votes for the candidate of our choice, we are helping to decide to whom our state's votes will go in the electoral college. Each state has a certain number of votes in the electoral college. The exact number of votes is based on population. At the present time New York State and California have the largest number of votes. Once a state has tallied the votes of its people, the representative in the electoral college is authorized to cast that state's share of votes for the favored candidate. It is therefore in the electoral college that the president is actually elected.

Passage 1

The science known today as physics began in early Greece. Greek philosophers speculated on the nature of the universe and the nature of matter. These two problems are still of great importance to present-day physicists, although the modern approach to them is very different from that of the ancient Greeks.

The Greek philosophers assumed that complete and valid knowledge of the physical world could be gotten solely from speculation. They did not believe that experiments were needed to test a theory. If a theory seemed right, no factual proof was needed. If a theory seemed wrong, a new theory had to be thought up. Not until Galileo (1564-1642) did anyone begin to use experimentation to test theories.

1. In this passage, the word *speculation* probably means
(A) test
(B) proof
(C) thought
(D) experimentation
2. The author implies that
(A) the science of physics has not changed much from ancient Greek times
(B) the problems of physics have not changed as much as the method of study
(C) the method of study has not changed as much as the problems of physics
(D) Galileo didn't believe in testing

1. A B C D

2. A B C D

Passage 2

(from *The Declaration of Independence*)

... That these United Colonies are, and of Right ought to be Free and Independent States; that they are Absolved from all Allegiance to the British Crown, and that all political connection between them and the State of Great Britain, is and ought to be totally dissolved; and that as Free and Independent States, they have Full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which Independent States may of right do.

1. You can infer that the Declaration of Independence
(A) declared that the Colonies were on equal footing with other nations
(B) demanded limited independence for the Colonies
(C) was written to cut colonial ties with Great Britain
(D) both (A) and (C)
2. The writers of The Declaration of Independence probably would have accepted
(A) the payment of taxes to Great Britain on American crops
(B) a profitable trade agreement with Great Britain
(C) service in the British Army
(D) none of the above

1. A B C D

2. A B C D

USING WHAT YOU HAVE LEARNED

4

- A. Read the following selection. Then look for the many facts it contains and decide what the main idea of the entire selection is.

Millions of years ago, a great change took place in the surface of the earth in East Africa. The earth collapsed, leaving a long, deep ditch known today as the Great Rift Valley of East Africa.

The Great Rift Valley is really divided into two long valleys. The Eastern Rift, the larger of the two valleys, is about 4,000 miles long and 2,000 feet deep. In some places, it is more than 30 miles wide. The Eastern Rift runs through the countries of Ethiopia, Kenya, Tanzania, and Mozambique. The Western Rift starts in southern Sudan and runs through the countries of Uganda, Rwanda, Burundi, Zambia, and Malawi.

Most of the lakes of East Africa were formed when the Great Rift Valley came into being. As the earth cracked, water flooded many areas. Lakes Rudolf, Manyara, Nyasa, and Tanganyika are a few of the large lakes in the Great Rift Valley. The most important body of water in the Rift Valley is Lake Victoria, the second largest lake in the world.

Some of Africa's tallest mountains and volcanoes are found near the Great Rift Valley. One is Mount Kilimanjaro, the highest mountain in Africa. This 19,340-foot high mountain is located in Tanzania. The second tallest mountain in Africa is Mount Kenya, located in Kenya.

The tops of many of the inactive volcanoes near the Great Rift Valley contain wide, deep craters, or holes. The largest one in East Africa is the Ngorongoro Crater. About 2,000 feet below its top is the floor of this huge crater. The area of the crater floor is about 100 square miles. Today the craters, as well as other areas in the Great Rift Valley, are home to thousands of wild animals.

surface: the top layer or outside
of something

collapse: to cave in, to fall apart

rift: a split, a crack

inactive: not in use, showing no
sign of life or movement

Place a check mark next to the correct answers to questions 1 to 10.

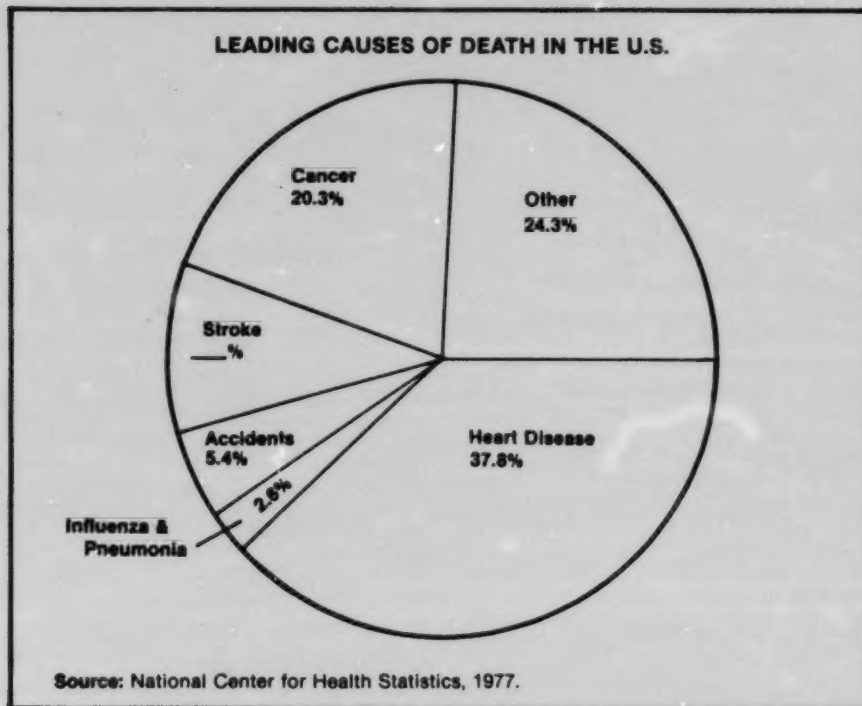
1. The long, deep ditch in East Africa is called
____ (a) the Grand Canyon.
____ (b) the Ngorongoro Crater.
____ (c) the Great Rift Valley.
2. The collapse of the earth's surface in East Africa happened
____ (a) 20 years ago.
____ (b) 4,000 years ago.
____ (c) millions of years ago.
3. The Great Rift Valley is really divided into
____ (a) two valleys.
____ (b) five valleys.
____ (c) seven valleys.

4. The Eastern Rift is about
 - ___ (a) 2,000 miles long and 2,000 feet deep.
 - ___ (b) 4,000 miles long and 2,000 feet deep.
 - ___ (c) 4,000 miles long and 4,000 feet deep.
5. The Eastern Rift can be seen in
 - ___ (a) the Sudan.
 - ___ (b) Zaire.
 - ___ (c) Kenya.
6. Most of the lakes of the Great Rift Valley
 - ___ (a) were there before the valley was formed.
 - ___ (b) were formed when the valley came into being.
 - ___ (c) have been empty for millions of years.
7. The second largest lake in the world is
 - ___ (a) Lake Victoria.
 - ___ (b) Lake Manyara.
 - ___ (c) Lake Tanganyika.
8. The tallest mountain in Africa is
 - ___ (a) Mount Kenya.
 - ___ (b) the Ngorongoro Crater.
 - ___ (c) Mount Kilimanjaro.
9. The floor of the Ngorongoro Crater is
 - ___ (a) empty.
 - ___ (b) home to millions of people.
 - ___ (c) home to thousands of wild animals.
10. Which one of the following sentences states the main idea of this selection?
 - ___ (a) Thousands of wild animals live in the Great Rift Valley.
 - ___ (b) East Africa contains many mountains and lakes.
 - ___ (c) The Great Rift Valley and the mountains and lakes near it are important land and water features in East Africa.

GRAPH SKILLS INVENTORY

5

GRAPH B

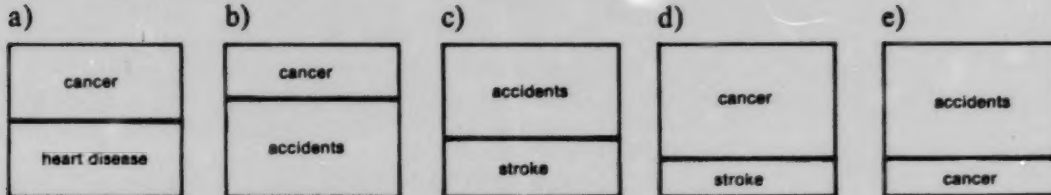


Directions. Answer each question by completing the sentence, answering true or false, or by selecting the best multiple-choice response.

9. Graph B, pictured above, represents the leading causes of _____ in the _____.
10. The percentage of deaths in the United States due to strokes is _____. (Fill this in on the graph.)
11. Heart disease and accidents are the two leading causes of death in the United States. True False
12. Each year, heart disease accounts for slightly more than one-third of the deaths in the United States. True False
13. The number of deaths due to accidents is _____ less than deaths due to strokes. a) 4.2%
b) 3.6%
c) 1.8%
d) 17.8%
e) 13.5%

14. Together, heart disease and _____ account yearly for slightly more than one-half of the deaths in the United States.
- a) heart attacks
 - b) strokes
 - c) cancer
 - d) pneumonia
 - e) other

15. A diagram that correctly shows the relationship between two causes of death is:



16. All the statements can be concluded from Graph B EXCEPT:
- a) Cancer and heart disease cause more than 50% of the deaths in the United States.
 - b) Fewer people die from car accidents each year in the United States than from strokes.
 - c) The leading cause of death in the United States is heart disease.
 - d) Graph B shows five leading causes of death in the United States.
 - e) Research funding for heart disease exceeds the funding for all other fatal illnesses.

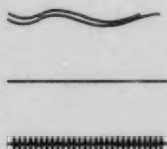
Map Keys and Scales

As you know, a map is a drawing that shows part or all of the surface of the earth. It can be very simple and show only a small part of a country, city, or town, or it can give a lot of details about all the countries of the world.

Map Keys

Let us first look at a simple map of a part of Egypt. (See page 173.)

What does this map of northern Egypt show? On it are many symbols. Some of them are:



Without knowing the meaning of the symbols, it is impossible to understand what the map is supposed to show.

A very important part of the map is missing: the *key*, or legend, to explain the meaning of each symbol on the map. By looking at the key, you would know what the map shows.

Here is the key that belongs to the map of northern Egypt.

KEY	
	River
	Major Highway
	Major Railroad
	Canal
	Major Airport

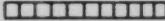
Use this key to help you answer the following questions about the map of Egypt.

1. The symbols used on the map of Egypt show

- ___ (a) how many people live in Egypt.
- ___ (b) how much food is grown in Egypt.
- ___ (c) many of the ways people travel in Egypt.

Which answer did you choose? The key shows different symbols that clearly stand for ways of traveling. These symbols represent rivers, highways, railroads, canals, and airports. Therefore, the answer to question 1 is (c).

2. The symbol for a canal on the map is

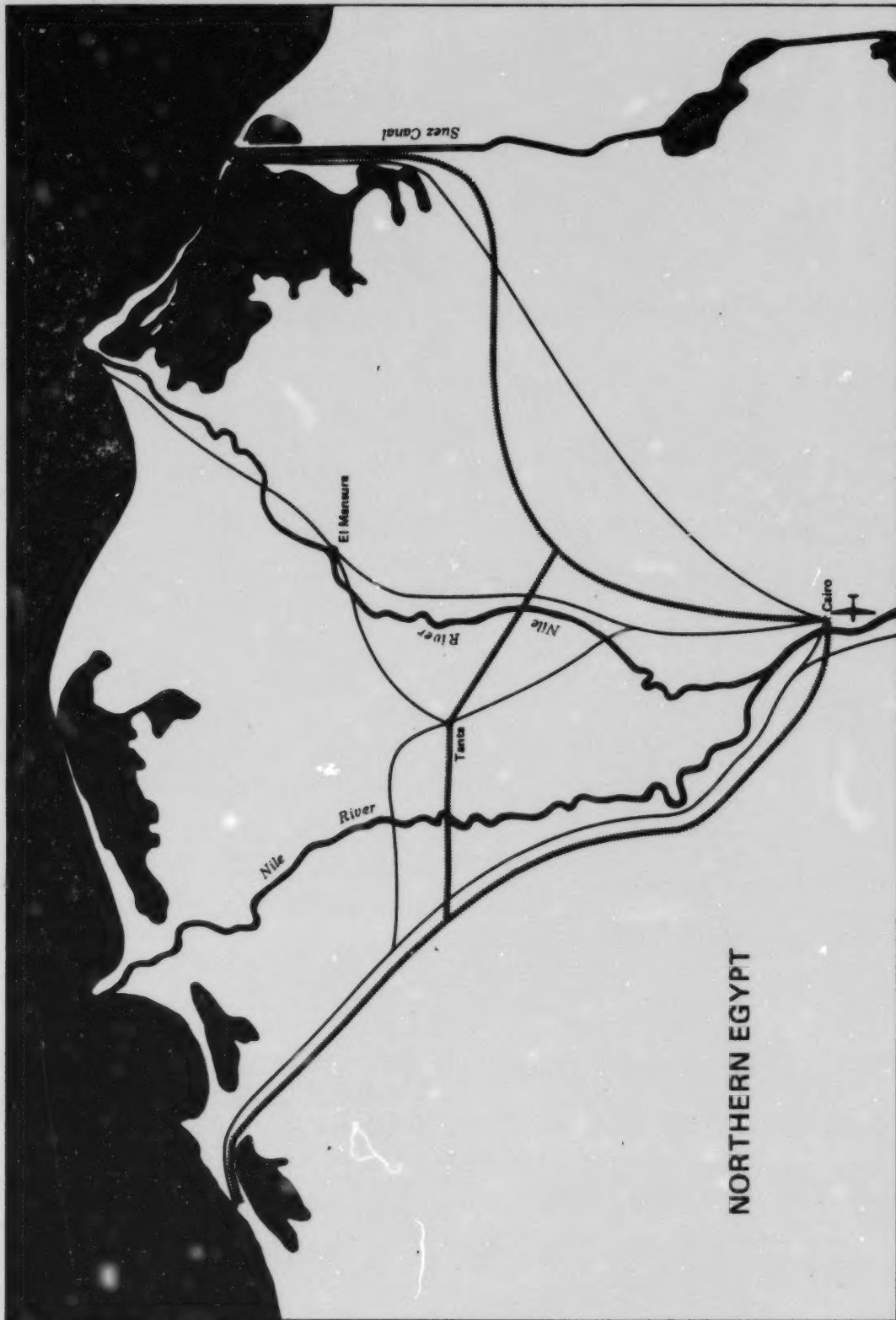
- ___ (a) 
- ___ (b) 
- ___ (c) 

Which answer did you choose? To find the meaning of a symbol on the map, you have to look at the key. The key shows that the symbol for a canal is . Therefore, the answer to question 2 is (c).

3. Which one of the following cities on the map has a major airport?

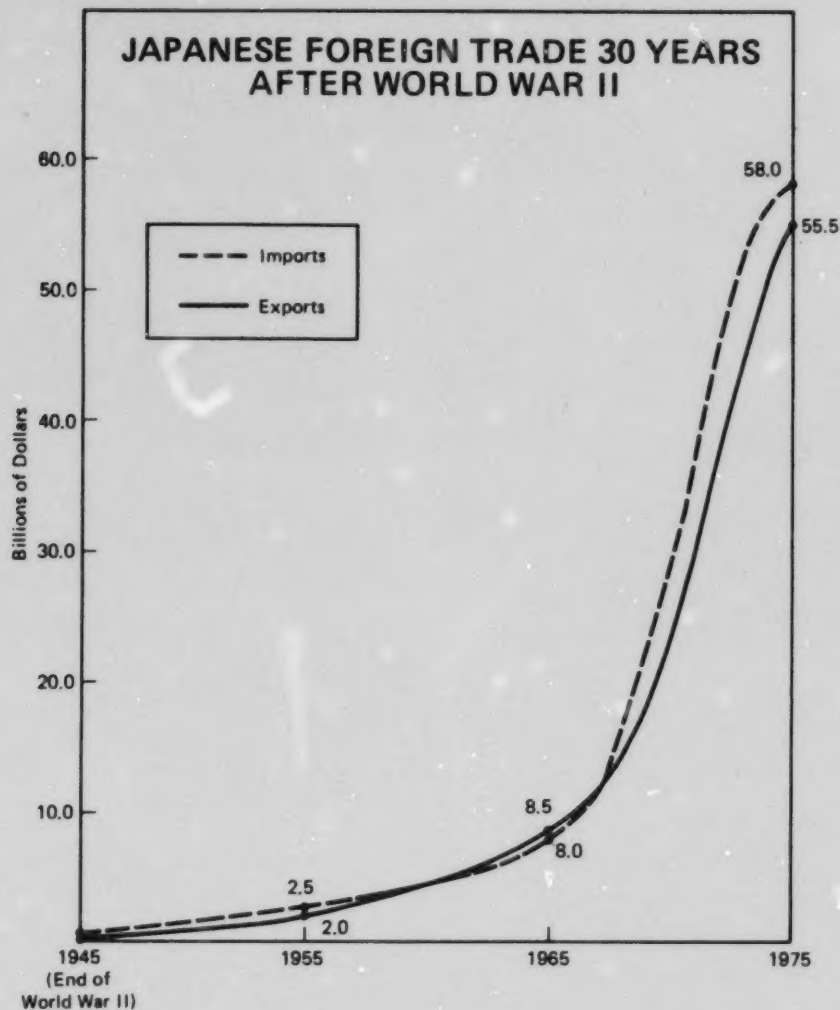
- ___ (a) Cairo
- ___ (b) Tanta
- ___ (c) El Mansura

What was your answer? The key tells you that  is the symbol for an airport. Now check to see if any of the cities in question 3 has this symbol next to it on the map. You can see that, of the cities named, only Cairo has the airport symbol next to it. Therefore, the answer to question 3 is (a).



MAP KEYS AND SCALES

B. Study the following double line graph on the foreign trade of Japan.



Place a check mark next to the correct answers to questions 1 to 9.

1. The graph shows Japan's imports and exports for
 - ☐ (a) 10 years.
 - ☐ (b) 30 years.
 - ☐ (c) 50 years.
2. The solid line shows the value of Japan's
 - ☐ (a) imports.
 - ☐ (b) exports.
 - ☐ (c) total foreign trade.

3. Which of the following was responsible for the low value of imports and exports in 1945?
- ___ (a) World War I
 - ___ (b) The Great Depression
 - ___ (c) World War II
4. In which year were Japan's imports less than its exports?
- ___ (a) 1955
 - ___ (b) 1965
 - ___ (c) 1975
5. What was the value of Japan's exports in 1975?
- ___ (a) 40 billion dollars
 - ___ (b) 55.5 billion dollars
 - ___ (c) 65 billion dollars
6. In which year was the value of Japan's imports 8 billion dollars?
- ___ (a) 1945
 - ___ (b) 1955
 - ___ (c) 1965
7. What was the total of all foreign trade in Japan in 1955?
- ___ (a) 4.5 billion dollars
 - ___ (b) 16.5 billion dollars
 - ___ (c) 20.5 billion dollars
8. Japan's imports and exports increased the most between
- ___ (a) 1945 and 1955.
 - ___ (b) 1955 and 1965.
 - ___ (c) 1965 and 1975.
9. In which year was the difference between the value of Japan's imports and exports the greatest?
- ___ (a) 1945
 - ___ (b) 1955
 - ___ (c) 1975
10. How does this double line graph show that *both* Japanese imports and Japanese exports have increased since 1945? (Answer in one or two sentences.)



7

Arizona
Republic

David Rose, News America Syndicate



Developmental Reading skillmaster 9

More Context Clues

by Dick Gordon

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Exercise 1. Can you guess the meaning of the italicized word in the following sentence?

All the other kids seemed so happy at the party; however, Bob felt *melancholy*.

What does *melancholy* mean? If you guessed "sad"—you're correct! The word *however* may have helped you figure out the correct meaning.

In case you're wondering why, read the sentence again. You'll soon see that the word *however* gives you a clue, or signal, that *melancholy* means the **opposite** of *happy*.

With the help of signal words like *however*, you can sometimes tell the meaning of an unfamiliar word by recognizing that it means the opposite of a word you already know. Let's take a look at some other words that signal opposition.

even though	although	not
instead of	while	no
in contrast	yet	but
on the other hand		

Now take a separate sheet of paper and make a chart like the one that follows. Notice how the chart has been filled in for this sample sentence:

My gym teacher *advocated* daily exercise, but my laziness made me oppose it.

Context Word	Signal Word Or Phrase	Contrasting or Opposing Idea	Meaning of Context Word
<i>advocated</i>	<i>but</i>	<i>oppose</i>	<i>recommended</i>

Now fill in your chart. The context word in each sentence appears in italics. Try to fill in the last column *without* looking in the dictionary.

1. The Simpsons *curtailed* their vacation, even though the good weather made them want to lengthen it.
2. Although the ointment was supposed to make the wound heal, I *exacerbated* the cut by scratching it.
3. Instead of calming Joan down, the policeman only seemed to *agitate* her.
4. While Alice's mom bragged about her daughter's *gentility*, Alice slurped her spaghetti noisily.

5. After weight lifting for a year, Bill thought he was *invincible*; yet the short, skinny kid knocked him out with one punch.

6. Lisa's hair was *sparse*; in contrast, her mother's hair was thick and full.

7. *Strife* had torn the nation for years, but now, at last, there was peace.

8. The textbook explanation was very *obscure*; on the other hand, my teacher's description was clear.

Exercise 2. Can you guess the meaning of the italicized word in this sentence?

Joan's *lucrative* job helped her escape from the poverty of her childhood.

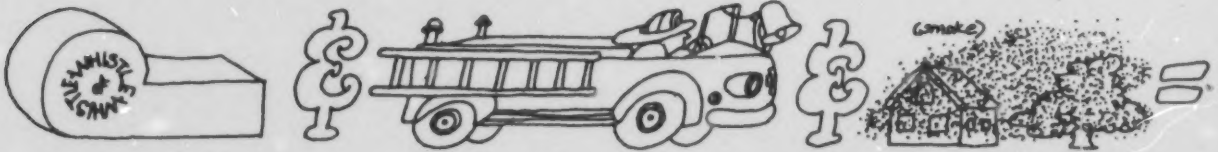
Even though you don't have the help of a signal word, you can see that there are opposing or contrasting ideas in this sentence. *Lucrative* contrasts with the word *poverty*. This clue helps you to conclude that *lucrative* probably means *well-paying*.

The sentences in the following exercise have no signal words. But they do contain opposing ideas.

In the blank before each sentence, write the meaning of the word in italics. Then show you've used the context clues by underlining the word or words that express contrasting ideas.

1. "I doubt your *veracity*," said the judge. "You've lied before."
2. The basketball star towered over the *diminutive* old man.
3. Sonia was too *frugal* to waste even a penny on bubble gum.
4. When his friends called him a coward, George *audaciously* climbed into the front seat on the roller coaster.
5. Anxious to reveal news of the upcoming price hikes to the public, two reporters tried to sneak into the *clandestine* meeting.
6. The kind lady removed the dog from the small, cramped cage to a more *commodious* one.
7. Many convicted criminals learn to appreciate freedom once they've been *incarcerated*.
8. Jim made me angry when he *divulged* our secret.

ACTIVITIES: Each of the paragraphs below is followed by statements. Put F in front of statements that are factual and I in front of statements that are inferences.



A. Newspaper Article

Police arrested three boys last night in a vandalism incident at Van Buren High School. People living close by reported the sound of breaking glass, and a cruiser arrived as the three boys in question were running from the school. Investigation showed that nine windows, each valued at \$100, had been broken. It was also learned that the same three boys had had an argument earlier in the day with a teacher who had accused them of cheating on a test.

- ___ 1. Three boys were arrested in a vandalism incident at Van Buren High School.
- ___ 2. Nine windows, each valued at \$100, were broken.
- ___ 3. The three boys arrested were the ones who had broken the windows.
- ___ 4. The three boys had done so because they were angry at a teacher.

B. Letter to the Editor

I am very distressed to see that our local schools have opened their athletic contests to girls. Back when I was in school, sports opportunities were provided for both boys and girls, but school authorities had sense enough to keep them separated. Girls can't compete on the same terms with boys and shouldn't have to. And boys should not have the quality of their sports brought down because they have to compete with girls. Mixing the groups is asking for trouble.

- ___ 1. The author is distressed at the idea of boys and girls competing against each other in athletic contests.
- ___ 2. The author is a man.
- ___ 3. The author opposes the idea of women's liberation.
- ___ 4. The author is an old fuddy-duddy who can't accept modern ideas.

Skillmaster Answers Developmental Reading

Exercise 1. The chart should be filled in in this order: (1) *curtalled*—even though—lengthen—shortened; (2) *exacerbated*—although—heal—made worse; (3) *agitate*—instead of—calming down—make upset; (4) *gentility*—while—slurped noisily—good manners; (5) *invincible*—yet—knocked out with one punch—unconquerable; (6) *sparse*—in contrast—thick, full—scanty; (7) *strife*—but—peace—fighting; (8) *obscure*—on the other hand—clear—vague.

Exercise 2. 1. truthfulness (underline *lied*); 2. small (underline *lowered*); 3. thrifty (underline *waste even a penny*); 4. boldly (underline *coward*); 5. secret (underline *reveal the news, sneak*); 6. spacious (underline *small, cramped*); 7. imprisoned (underline *freedom*); 8. revealed (underline *secret*).

Critical Reading

Activity A: 1. F, 2. F, 3. I (Evidence suggests that the boys broke the windows, but the charges have not actually been proved.) 4. I.

Activity B: 1. F, 2. I, 3. I, 4. I.

Love, Let Me Not Hunger

The bumblebee goes
from the rose
to the marigold
then goes back to the rose.
The caterpillar climbs
each ribbon of vine
even the caterpillar knows,
the day's so warm
you wouldn't dare touch it
if it lay down by your side.
So come to me, come to me,
my arms are open wide.

Love let me not hunger-
I've been alone so long.
How can a little taste
of wine be wrong?
We'll not get any younger.
Come listen to my song
and if you've had a hunger
perhaps you'll sing along.

The day's so warm
you can feel the sun.
What does it matter
what's done in the day
after the day is done?

Love let me not hunger.
Come and take my hand,
and if you've ever hungered
I know you'll understand.

from Pastorale Rod McKuen, 1970
Stanyan Books, publishers

Alamo Junction

When I get back to Alamo Junction
I guess they'll all be pretty surprised
to find out just how tall I've grown
and oh how wordly wise.

When I go home to Alamo Junction
I'll look those people straight in the eyes
the ones who thought I'd never go nowhere
and never come home with the prize.

I'll tell them all what kind of a world
lies beyond the trees.
I'll tell them all of the times I've had
while hiking and sailing the seas.

When I go home to Alamo Junction
they'll all turn out decked out in their best,
they'll welcome me their soldier of fortune
who's set apart from the rest.

When I got back to Alamo Junction
the town somehow just wasn't the same,
All the folks I thought would remember
had all but forgotten my name.

from In Someone's Shadow Rod McKuen, 1970.
Cheval Books, publishers

Poem #26

If we could do it all again,
water bike through Roman cities
in the rain.
Watch the cats catch lizards in
the Forum.
Drink bad wines from mouth to mouth,
I probably would try to love you harder than I did,
I might smile a smile much better than
the ones you knew.
I was just rehearsing then.
Imagining what reason why
it happened in years to come.
It's not just you I love
or even Roman rain,
or all the times you rattled
on my window after 12 o'clock.

I love the smell of rooms
where you've been,
The foreign touch of things
I never knew until you
came along.
I even love your enemies
because they drive you to
my arms for comfort.

from Stanyan Street and Other Sorrows
Rod McKuen, 1967
Stanyan Books, publishers



HOW TO FIGURE NET PAY

Net pay is the money you actually receive, after taxes and other deductions have been taken out. Look at Jim Brown's earnings statement below.

STATEMENT OF EARNINGS		
BETTER FOODS INC.	Gross Pay	Withholding Tax
Jim Brown	\$795.77	\$102.74
SS# 268-40-5331	F.I.C.A.	Union Dues
6/1/79	\$ 49.83	\$ 6.00
	Health Ins.	Net Pay
	\$ 23.20	\$614.00

Jim's gross pay is \$795.77. The following deductions are taken out of his paycheck each month.

Social Security (F.I.C.A.)	\$ 49.83
Health Insurance	23.20
Withholding Tax	102.74
Union Dues	6.00

Add all these *deductions* together. Total Deductions: \$181.77. This is the total amount deducted from Jim's gross pay each month. Subtract the total amount of deductions from Jim's gross pay.

\$795.77	gross pay
- 181.77	total deductions
\$614.00	Jim's net pay

1.

STATEMENT OF EARNINGS		
EXCEL DENTAL LABORATORY	Health Insurance	Gross Salary
	\$ 24.04	\$742.00
Frank Gonzales SS# 776-24-7001 7/31/79	Withholding Tax	F.I.C.A.
	\$112.78	\$ 44.89
	Life Insurance	Net Pay
	\$ 4.34	\$ _____

- What is Frank's gross salary? _____
- How much does he pay for withholding tax? _____
- How much does he pay for health insurance? _____
- How much is taken out for social security? _____
- How much does he pay for life insurance? _____
- What is the total amount deducted from Frank's pay each month? _____
- What is Frank's net pay? _____

2.

STATEMENT OF EARNINGS		
ROUND-THE- WORLD TRAVEL, INC.	Gross Pay	F.I.C.A.
	\$888.00	\$ 53.72
Sally Simmons SS# 055-27-6802 8/15/79	Health Insurance	Retirement
	\$ 42.41	\$ 59.05
	Withholding	Net Pay
	\$104.07	\$ _____

- How much is deducted from Sally's pay each month?

- What is Sally's net pay?

YOUR GROSS PAY

Gross pay is the amount of money you make before taxes and other deductions are taken out. If you are paid by the hour, it is the number of hours worked times the hourly rate. Suppose you worked 40 hours at \$3.20 per hour. To figure your gross pay, you would multiply as follows:

$$\begin{aligned}\text{gross pay} &= \text{hours worked} \times \text{hourly rate} \\ \text{gross pay} &= 40 \text{ hours} \times \$3.20 \text{ per hour} \\ \text{gross pay} &= \$128.00\end{aligned}$$

1. Look at the time card below. Van's gross pay is already figured. What is the gross pay for the other three people?

	Van	Lupe	Ruth	Buddy
Total Hours Worked	40	38	24	30
Hourly Rate	\$3.80	\$3.25	\$4.10	\$3.50
Gross Pay	\$152.00			

2. The time cards below are a little different. They tell what time the person got to work, what time the person left, and how much time was taken for lunch. What is Peter's gross pay? What is Carmen's?

Name <u>Peter DeLuca</u>				
SS # <u>428-98-6844</u>				
Week Ending <u>9-14-79</u>				
	Time In	Time Out	Lunch Time	Hours Worked
M	8:00	5:00	1	8
T	7:00	4:00	1	8
W	8:15	6:15	1	9
Th	7:30	4:30	1	8
F	8:00	4:00	1	7
Hourly Rate—\$4.50				
Total Hours Worked <u>40</u>				
Gross Pay _____				

Name <u>Carmen Hidalgo</u>				
SS # <u>255-06-0791</u>				
Week Ending <u>9-14-79</u>				
	Time In	Time Out	Lunch Time	Hours Worked
M	8:00	5:00	1	8
T	9:00	6:00	1	8
W	8:00	5:00	1	8
Th	7:30	4:30	1	8
F	8:00	5:00	1	8
Hourly Rate—\$3.60				
Total Hours Worked <u>40</u>				
Gross Pay _____				

Vocabulary Review

Real Life Employment Skills
Scholastic Book Skills

1 See how many abbreviations you can figure out from the list under **Column A**. Choose the matching whole word from the list under **Column B**. Write the letter of the word beside its abbreviation.

appt	_____
ass't	_____
bkpr	_____
clk	_____
dept	_____
exp	_____
F/T	_____
grad	_____
intvw	_____
mgr	_____
opr	_____
P/T	_____
prefd	_____
sec	_____
temp	_____

- a. full-time
- b. part-time
- c. temporary
- d. appointment
- e. graduate
- f. assistant
- g. clerk
- h. experience
- i. department
- j. bookkeeper
- k. manager
- l. secretary
- m. preferred
- n. operator
- o. interview

2. Rewrite the following want ads, using whole words.

P/T clk, asst to bkpr. Exp pref'd.
Call for appt. 555-2970

F/T tel opr. No exp nec.
Call 555-2302

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or printed text on the paper. A small, dark speck is visible near the bottom center of the page.

BEST COPY AVAILABLE

Help-Wanted Ads

Comparing and Contrasting

You have an idea of your skills and interests. You think you know what type of work you would like to do. Now it's time to let the newspaper do some work for you.

Skills

Reading the classified ads
Comparing and contrasting details

Words to Know

Appt	Appointment — time to meet
Exp	Experienced — did the same job before
Pref'd	Preferred — wanted
Rel	Reliable — can be trusted
Sal	Salary — pay
Temp	Temporary — short-term

How to Read Help-Wanted Ads

In the classified section of the newspaper, ads for similar kinds of work are usually grouped together. For example, you'll find ads listed under headings like "Sales" or "Clerical" or "Mechanic." After you find the heading you're interested in, look at the ads listed.

Ads use abbreviations or shortened forms of words. Use context clues in the same ad to figure out the meaning of an abbreviated word.

Sample Want Ad

MECHANIC 175/wk

Trainee

No exp nec. We'll train you to repair nationally known brands of typewriters.

Good fringe benefits.

- dental plan
- major medical
- paid vacations
- free uniforms

Mechanical aptitude pref'd.

Call for appt after 10 a.m.
555-3715

PROOFREADER

Rank publich...ads true with

What would you be paid each week?

In two words, write the kind of work you would do.

Fringe benefits are the extras you get, such as paid vacations.

Do you have to pay for uniforms in this job?

They prefer that you have some natural talent in working with machines. Do you think you do?

How would you apply?

Compare and Contrast
When looking through the classified section, you may come across more than one ad for the same kind of work. Carefully read the information in each ad. Then see how the salaries, hours, benefits, etc., are alike. See how they are different.

SECRETARY/\$190

Typing 50 wpm
1 year exp

Lots of room for
advancement

Two-week vacation
Exc. benefits

Call for interview
555-4444

Job A**SECRETARY/\$210**

Min 3 years
secretarial exp

Neat and accurate
typing skills 60+ wpm

Steno pref'd but not
required. Good phone
manner a must.

Send resume to Jones Co.,
110 Main St.

Job B

1. Write your answers on the lines.

a. In the two want ads above, which job pays more? _____

How much more? _____

b. Which job promises that you can get ahead? _____

c. For which job would you most likely use the telephone? _____

d. How much more experience is needed to get job B than job A? _____

e. For which job would it be helpful to know steno (shorthand writing)? _____

2. Put a check (✓) next to the best answer.

a. To apply for job A, you should first

- ☐ write for an appointment.
☐ telephone.
☐ come in for an interview.

b. To apply for job B, you should first

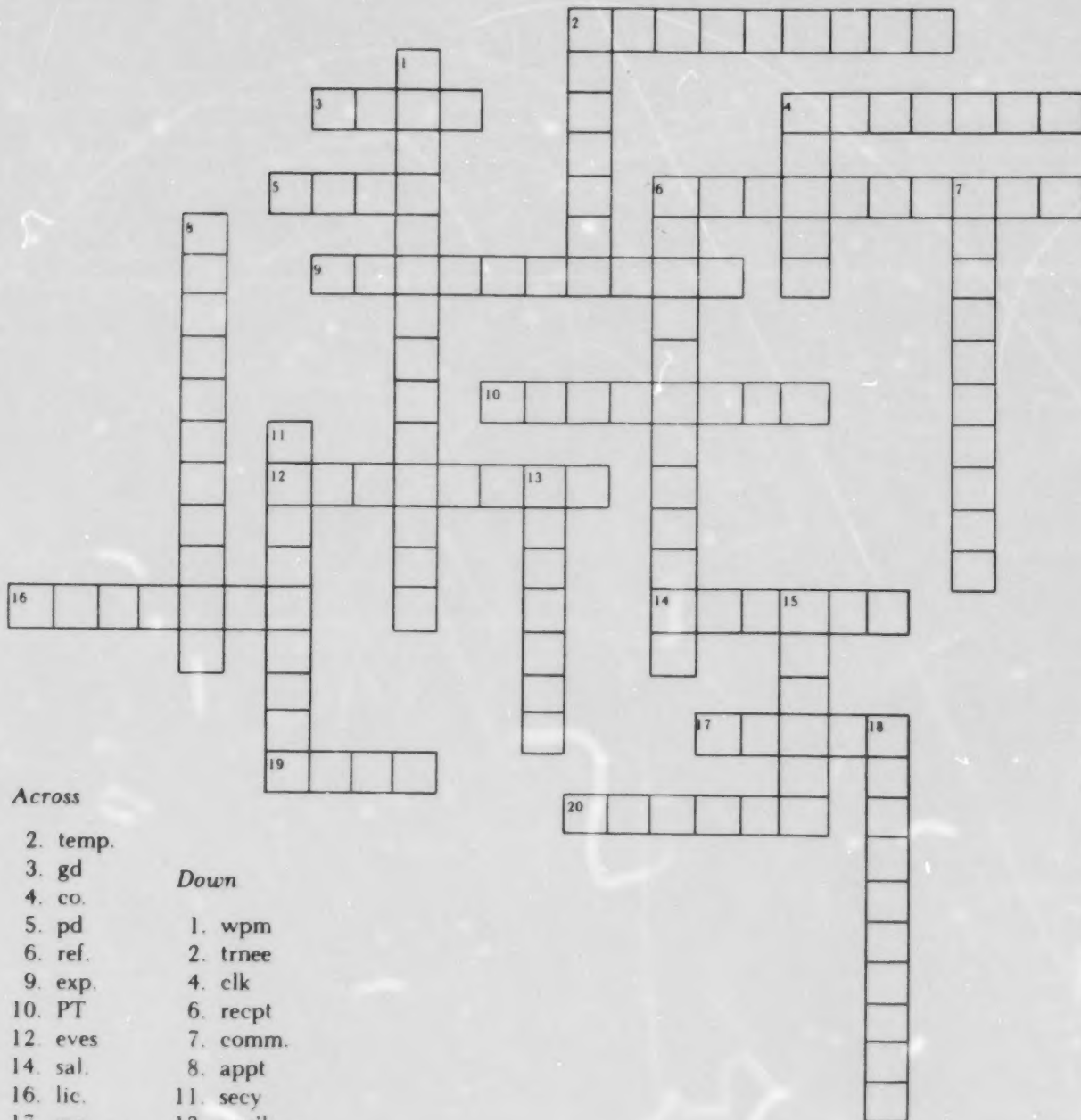
- ☐ write a letter.
☐ phone the company.
☐ send in your resume.

c. How do the jobs compare? How are they alike?

- ☐ They pay the same salaries.
☐ They both have good benefits.
☐ They both require previous experience.

HELP WANTED ADS CROSSWORD PUZZLE

Fill in the puzzle with the word or words each abbreviation stands for.



Across

- 2. temp.
- 3. gd
- 4. co.
- 5. pd
- 6. ref.
- 9. exp.
- 10. PT
- 12. eves
- 14. sal.
- 16. lic.
- 17. mo.
- 19. yr
- 20. hrly

Down

- 1. wpm
- 2. trnee
- 4. clk
- 6. recpt
- 7. comm.
- 8. appt
- 11. secy
- 13. gen'l
- 15. agcy
- 18. h.s.

The Job Picture

Reading Graphs

When you get deeper into your job research, you will come across graphs that show information in a quick, easy-to-see way. Facts that would take you a long time to read can be readily understood when displayed on a graph.

Skills

Reading a pie graph

Reading a line graph

Reading a bar graph

Words to Know

Labor force — all the people who work for wages

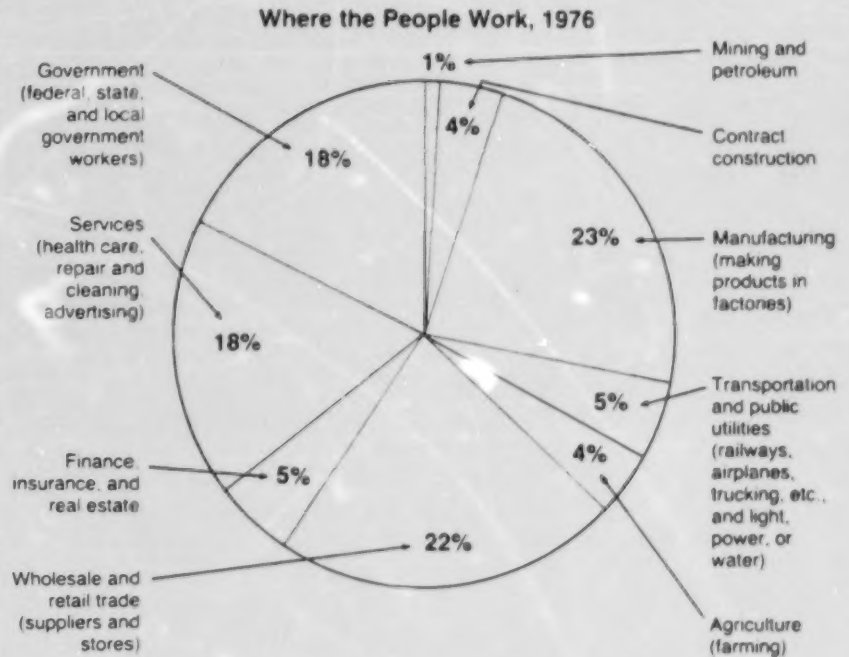
Occupation — the work in which one engages

Percentage — a part of a whole expressed in hundredths

Unemployed — without a job

What jobs do people have?

The pie graph shows the percentage of the work force employed in nine different job groups in the United States in 1976. Each job group has a slice of the pie which shows the percentage of workers in that occupation. The whole pie adds up to 100%.



Source: Bureau of Labor Statistics

1 Look at the pie graph to help you answer the following questions.

a. Which type of job has the largest percentage of workers?

_____ the smallest? _____

b. What percentage of the work force is in government?

_____ in farming? _____



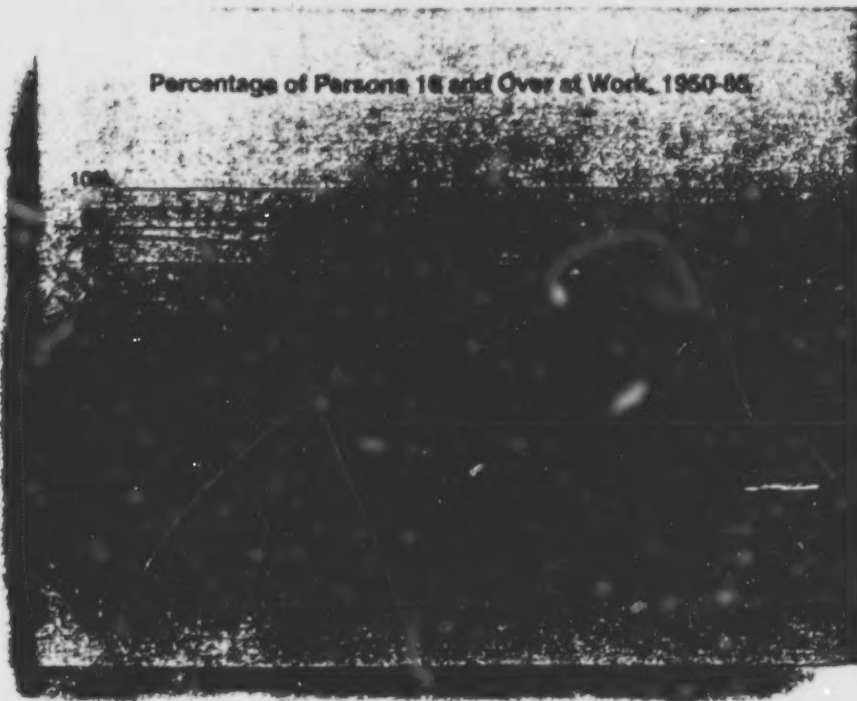
Who has the jobs?

This line graph shows the percentage of women and men who were or who will be in the labor force for the years 1950-85. The years are noted along the bottom of the graph. The percentages are noted along the side of the graph. There are separate lines for men and women workers.

Who doesn't have jobs?

This bar graph shows that people who did not finish high school are more likely to be without jobs. The numbers along the bottom of the graph are years of schooling. The percentages of unemployed people are along the side.

Percentage of Persons 16 and Over at Work, 1950-85

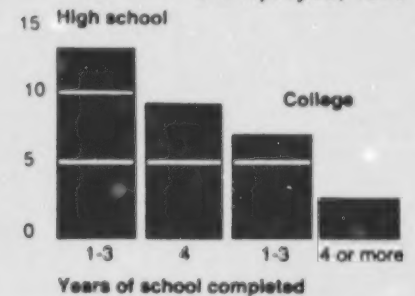


Source: Bureau of Labor Statistics

2. Look at the line graph to help you answer the following questions. To find out, for instance, how many women were in the labor force in 1970, follow the "women" line until you are directly above 1970. Then look to the left at the percentages. You will find that the answer is 40%.

- What percentage of men were in the labor force in 1955? _____
in 1975? _____ in 1985? (expected) _____
- What percentage of women were in the labor force in 1955? _____
in 1975? _____ in 1985? (expected) _____
- Will a greater percentage of women be in the labor force in 1985 than in 1950? _____
- Were a greater percentage of men in the labor force in 1950 or in 1975? _____

Percentage of Unemployed, 1976



Source: Bureau of Labor Statistics

3. Look at the bar graph. To find out the highest percentage of unemployment, look at the longest bar. It shows that 14% of people with only one to three years of high school were unemployed. The next bar shows a much lower unemployment rate for high school graduates.

- What was the unemployment rate for people with two years of college?

With four or more years of college?

- What was the difference in the unemployment rate between those who have completed one year of high school and those who have completed all four years?

OVERTIME PAY

People must know how to figure not only their gross pay, but also their overtime pay. The usual work week is 40 hours. Any time worked over 40 hours is "overtime." Many employers pay time and a half for overtime. This means that the pay for one hour of overtime is equal to the pay for $1\frac{1}{2}$ hours of regular work.

Let's say you are paid \$3.60 an hour and have worked 44 hours this week. You have therefore put in four hours of overtime (44 hours - 40 hours = 4 hours).

1. How much have you made on overtime?

- a. First, you must figure your overtime pay for one hour. To do this, multiply your hourly wage $1\frac{1}{2}$ times.

$$\$3.60 \times 1\frac{1}{2} = ?$$

In order to multiply, change the fraction $1\frac{1}{2}$ into a decimal: 1.5.

Now multiply \$3.60 by 1.5 or

$$\begin{array}{r} \$3.60 \\ \times 1.5 \\ \hline 1800 \\ 360 \\ \hline \end{array}$$

\$5.400 (Remember to count off three decimal places.)

Your overtime pay for one hour is \$5.40.

- b. To figure your overtime pay for four hours:

$$\begin{array}{r} \$ 5.40 \\ \times \quad 4 \\ \hline \end{array}$$

\$21.60 Your overtime pay for four hours is \$21.60.

2. To figure your gross salary for the week, multiply your hourly wage by your regular 40 hours of work.

$$\begin{array}{r} \$ 3.60 \\ \times \quad 40 \\ \hline \end{array}$$

\$ 144.00 Your regular pay for the week is \$144.00.

3. To figure your total week's pay, add your overtime pay to your regular pay.

$$\begin{array}{r} \$ 144.00 \\ + 21.60 \\ \hline \end{array}$$

\$ 165.60 Your total week's pay is \$165.60.

Look at the time worked by Angela, Jo, Lisa, and John. Fill in the amount of their usual weekly salary, the amount of overtime pay they each received, and their total gross salary for the week. Angela's is already done for you.

	Angela	Jo	Lisa	John
Regular Hours Worked	40 hrs.	40 hrs.	40 hrs.	40 hrs.
Hourly Rate	\$3.80	\$3.50	\$2.95	\$4.00
Weekly Salary	\$152			
Overtime Worked	3 hrs.	2 hrs.	5 hrs.	3 $\frac{1}{2}$ hrs.
Overtime Pay	\$17.10			
Total Gross Salary	\$169.10			

Now look at Sylvia's time card below. Figure her gross weekly pay. To do this, you will have to figure how many hours she worked each day, and then figure how much she was paid for regular hours and overtime. Sylvia's regular work hours are 8:00-5:00. Her hourly rate is \$3.00. The first day has been done for you.

Name: Sylvia Hernandez		Week Ending: 6/1/79			
SS#: 000-436-000					
	Time In	Time Out	Lunch	Total # of Hours Worked	Overtime
Monday	7:00 A.M.	5:30 P.M.	1 hr.	9 $\frac{1}{2}$	1 $\frac{1}{2}$
Tuesday	8:00 A.M.	5:00 P.M.	1 hr.		
Wednesday	7:30 A.M.	6:30 P.M.	1 hr.		
Thursday	8:00 A.M.	6:00 P.M.	1 hr.		
Friday	8:00 A.M.	5:30 P.M.	1 hr.		
Hourly Rate: \$3.00 Regular Weekly Pay: _____ Overtime Pay: _____ Total Gross Pay: _____					

CAPITALIZATION AND PUNCTUATION REVIEW

EXERCISE 1: Using Capital Letters

Read each sentence. If the sentence needs a capital letter, rewrite the sentence. Use a capital letter when one is needed.

EXAMPLE: the train was late again this morning.

The train was late again this morning.

1. that refrigerator motor makes a lot of noise.
2. be careful going down the stairs.
3. two birds are building a nest under our porch roof.
4. Come down to the basement right away!
5. he ate a banana split for dessert.
6. His sister zelda works at a gas station.
7. We buy most of our clothes in brooklyn.
8. Lucinda remembered that i like chocolate cake.
9. I asked joan to lend me her baseball glove.
10. He will have the reports delivered to boston.
11. Our best player, marco, is in the locker room.
12. He lives near the empire state building.

CHECKUP TEST 4

Introduction to English
Cambridge

Periods, Question Marks, and Exclamation Points

LEARNING GOALS:

- To review Chapters 18-23

1. Put the correct punctuation mark in each blank below.
 - a. What is a draftsman_____
 - b. A draftsman is a person who makes drawings for engineers, architects, and designers_____
 - c. Great____ Do the drawings have to be exact_____
 - d. Yes____ They are done with compasses, slide rules, and other instruments_____
 - e. They must show the exact size and dimensions of the object_____
 - f. Wow____ What are the drawings of_____
 - g. Anything from toasters to space capsules, from typewriters to bridges_____
 - h. Heavy_____
 - i. It's not "heavy" if you have the proper qualifications_____
 - j. What are they_____
 - k. Draftsmen need drawing ability_____
 - l. They also need some training in mechanical drawing and drafting_____
 - m. Where is this training given_____
 - n. Some high schools give such training_____
 - o. For higher level jobs, it is usually better to take some post-high school training_____
 - p. Many technical schools offer such courses_____
 - q. Write to the American Institute for Design and Drafting, Post Office Box 2955, Tulsa, Oklahoma 74101_____

Abbreviations

EXERCISE 27

Remember:

An abbreviation is a shortened form of a word.

Place a period after each abbreviation.

A. For what does each of the following abbreviations stand?

- | | |
|----------------|-----------------|
| 1. qt. | 11. Nov. |
| 2. yd. | 12. Thurs. |
| 3. in. | 13. dept. |
| 4. Supt. | 14. Kan. |
| 5. Ave. | 15. R.R. |
| 6. Sr. | 16. Apr. |
| 7. min. | 17. Jr. |
| 8. etc. | 18. Rev. |
| 9. C.O.D. | 19. Apt. |
| 10. Capt. | 20. bldg. |

Subtract 5 points for each error.

Score:

Can you break the code?

You'll need to understand
certain abbreviations to read
the classified ads for rental housing.
Try your hand at these.



hse _____

kit _____

lg _____

lvng rm _____

mod _____

no fees _____

nr schls _____

nr shpng _____

prkg _____

refs _____

sbrbn lvng _____

sec bldg _____

sngr _____

stud _____

ten _____

trplx _____

unf _____

util not _____

incld _____

Words in a Series—the Comma

THE RULE Commas are used to separate words in a series. (A comma follows the word before the conjunction.)

INSTRUCTIONS

Place commas where needed.



I need bread, milk, and eggs.

EXAMPLES

- a. Bob, Daniel, Mickey, and Peter stayed after school.
- b. At the zoo we saw camels, zebras, elephants, and lions.

1. I am taking science, English, math, and history.
2. Oranges apples and pears were on the table.
3. She invited Harold Brenda Sarah and George.
4. You have two dogs six cats and one green turtle.
5. Mark brought his pencil paper and notebook.
6. Dogs cats and children are not allowed in here.
7. Richard Michael and Phillip were responsible for this.
8. I have talked to doctors lawyers and businessmen.
9. California Nevada and Arizona are western states.
10. Kenneth ate sandwiches potato chips and cookies.
11. My favorite sports are tennis baseball and swimming.
12. Martha Maxine Mary and Maureen are sisters.
13. Annie is frightened of mice snakes frogs and turtles.
14. We will need money food clothes and shelter.
15. The sign was painted blue yellow orange and black.
16. Mr. Walters has written many poems short stories and novels.
17. Jackson Alexander Kelly and Larry entered the contest.
18. The robbers took money jewelry and important papers.
19. Donna Jack Sarah and Wendy are not members.
20. "Books" "rain" "refrigerator" and "people" are common nouns.
21. We should eat a balanced diet of meats vegetables breads and fruits.
22. Adam Beverly and Anita are in the ninth grade.
23. I like hamburgers hot dogs and peanut butter sandwiches.
24. "I" "you" "me" "he" "she" and "it" are singular pronouns.

* Commas are used to _____ words in a series. A _____ follows the word before the conjunction.

BACK PAGE
EXERCISES

Write five sentences containing words in a series.

NUMBER
MISSED

Separating Compound Sentences -- the Comma

5

THE RULE

A comma is used often before the conjunction which connects a compound sentence.



INSTRUCTIONS

Place commas where needed.

The sleds were too big, and Tina fell on the ice.

EXAMPLES

- a. He is a doctor, and his wife is an attorney.
- b. We tried to help the man, but it was too late.

1. Carrie is going to the show, but Sol will stay at home.
2. The trip was canceled and everyone was very disappointed.
3. She was an hour late for dinner and her parents waited impatiently.
4. My pen ran out of ink but Sally loaned me another one.
5. You may go home now on the bus or you may wait until four o'clock.
6. My brother is my friend but my sister hates me.
7. The air felt chilly but the water was warm enough for swimming.
8. His eyes were a light blue and his hair was a dark brown.
9. Karen studied her science and Gerald studied his history.
10. Alice invited several of her friends to the party but no one came.
11. In the mornings we exercised and in the afternoons we rested.
12. His face was old and wrinkled and his body was tired and worn.
13. It was time to leave but no one wanted to go home.
14. Sally and I posed for the camera and Joe took our picture.
15. I told Eric the problem and he searched for a solution.
16. Wendy wanted to stay but her mother ordered her home.
17. The lightning flashed in the sky and the sky became dark and scary.
18. I will bring the hot dogs and Janice will bring the salad.
19. Diana was beautiful but her twin sister was ugly.
20. Mark gave his report to the class and everyone took notes.
21. The man waited patiently for the bus but it was late again.
22. She wanted it to be a surprise but Ben knew about the party.
23. The weather was cold and wet but the children had fun.
24. Everyone waited for the surprise but Carl did not bring it.
25. The car was beautiful and Dad bought it immediately.



A comma is used often before the _____ which connects a compound sentence.

BACK PAGE EXERCISES

Write five compound sentences.

NUMBER
MISSED

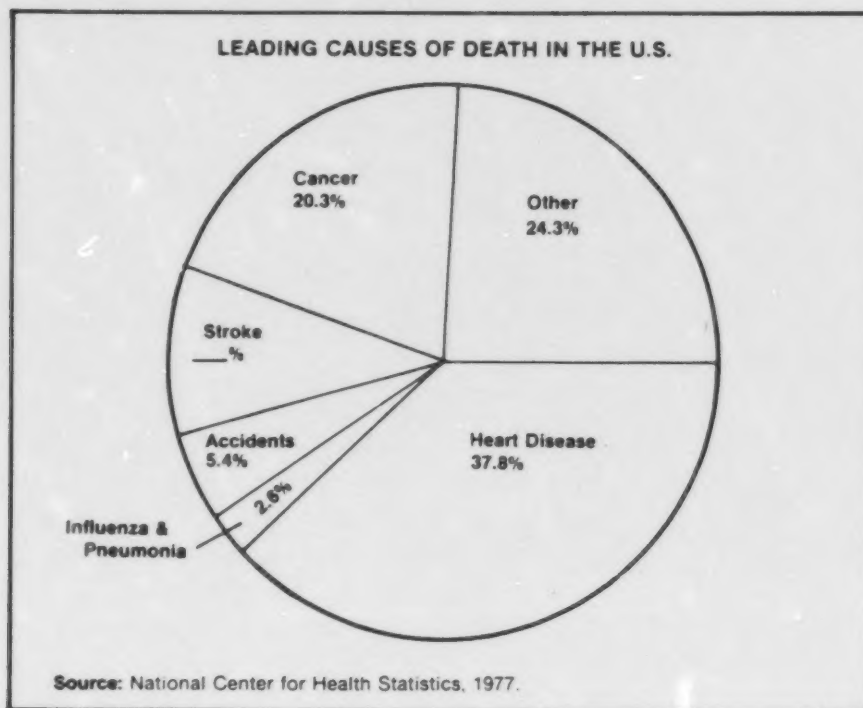
CHANGING FRAGMENTS INTO SENTENCES

Some statements below are incomplete. Change the fragments into sentences by supplying the necessary words or changing the punctuation to connect parts with the main idea. Leave the complete sentences as they are.

1. Cooking, my favorite rainy day pastime.
2. While we were rowing across the lake. The boat overturned.
3. In the mail she found a gift. Which came as by surprise.
4. Handball, tennis, and ping-pong are man-to-man sports.
5. I sat in the car quietly. Just my dog and the radio.
6. In the last lap of the relay race. Tome dropped, the stick.
7. John, the doctor's only son.
8. He became an auto mechanic.

FINAL GRAPH SKILLS INVENTORY

GRAPH B

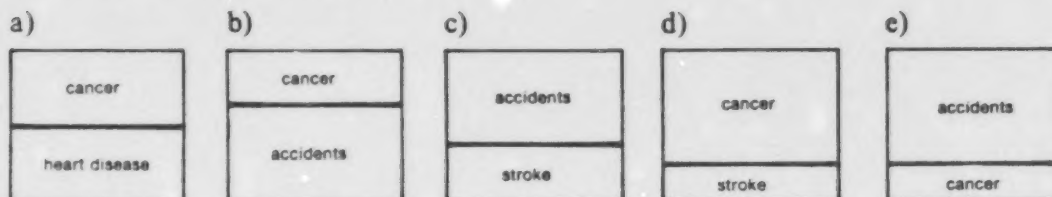


Directions. Answer each question by completing the sentence, answering true or false, or by selecting the best multiple-choice response.

9. Graph B, pictured above, represents the leading causes of _____ in the _____.
10. The percentage of deaths in the United States due to strokes is _____. (Fill this in on the graph.)
11. Heart disease and accidents are the two leading causes of death in the United States. True False
12. Each year, heart disease accounts for slightly more than one-third of the deaths in the United States. True False
13. The number of deaths due to accidents is _____ less than deaths due to strokes. a) 4.2%
b) 3.6%
c) 1.8%
d) 17.8%
e) 13.5%

14. Together, heart disease and _____ account yearly for slightly more than one-half of the deaths in the United States.
- a) heart attacks
 - b) strokes
 - c) cancer
 - d) pneumonia
 - e) other

15. A diagram that correctly shows the relationship between two causes of death is:



16. All the statements can be concluded from Graph B EXCEPT:
- a) Cancer and heart disease cause more than 50% of the deaths in the United States.
 - b) Fewer people die from car accidents each year in the United States than from strokes.
 - c) The leading cause of death in the United States is heart disease.
 - d) Graph B shows five leading causes of death in the United States.
 - e) Research funding for heart disease exceeds the funding for all other fatal illnesses.

B. Study the following chart on food prices.

FOOD PRICES IN FIVE CITIES AROUND THE WORLD IN 1978					
(Figures in United States Dollars)					
Product	Washington, D.C. (U.S.A.)	London (United Kingdom)	Buenos Aires (Argentina)	Tokyo (Japan)	Mexico City (Mexico)
Eggs (Dozen)	\$.84	\$1.13	\$.65	\$ 1.04	\$.60
Butter (Pound)	1.70	1.33	1.30	3.39	1.59
Cheese (Pound)	2.31	1.51	1.60	2.68	3.27
Milk (Quart)	.56	.40	.24	1.03	.27
Bread (Pound)	.57	.32	.30	.65	.26
Sugar (Pound)	.30	.26	.28	.57	.25
Chicken (Pound)	.52	.81	.86	1.88	.97
Steak (Pound)	3.02	4.25	1.02	15.87	1.45
Potatoes (Pound)	.33	.09	.25	.51	.16

Place a check mark next to the correct answers to questions 1 to 9.

1. The chart shows

- ___ (a) how much money people make in five cities around the world.
- ___ (b) food prices in five cities around the world.
- ___ (c) that food prices in the United States are always lower than in other countries.
- ___ (d) that food prices in the United States are always higher than in other countries.

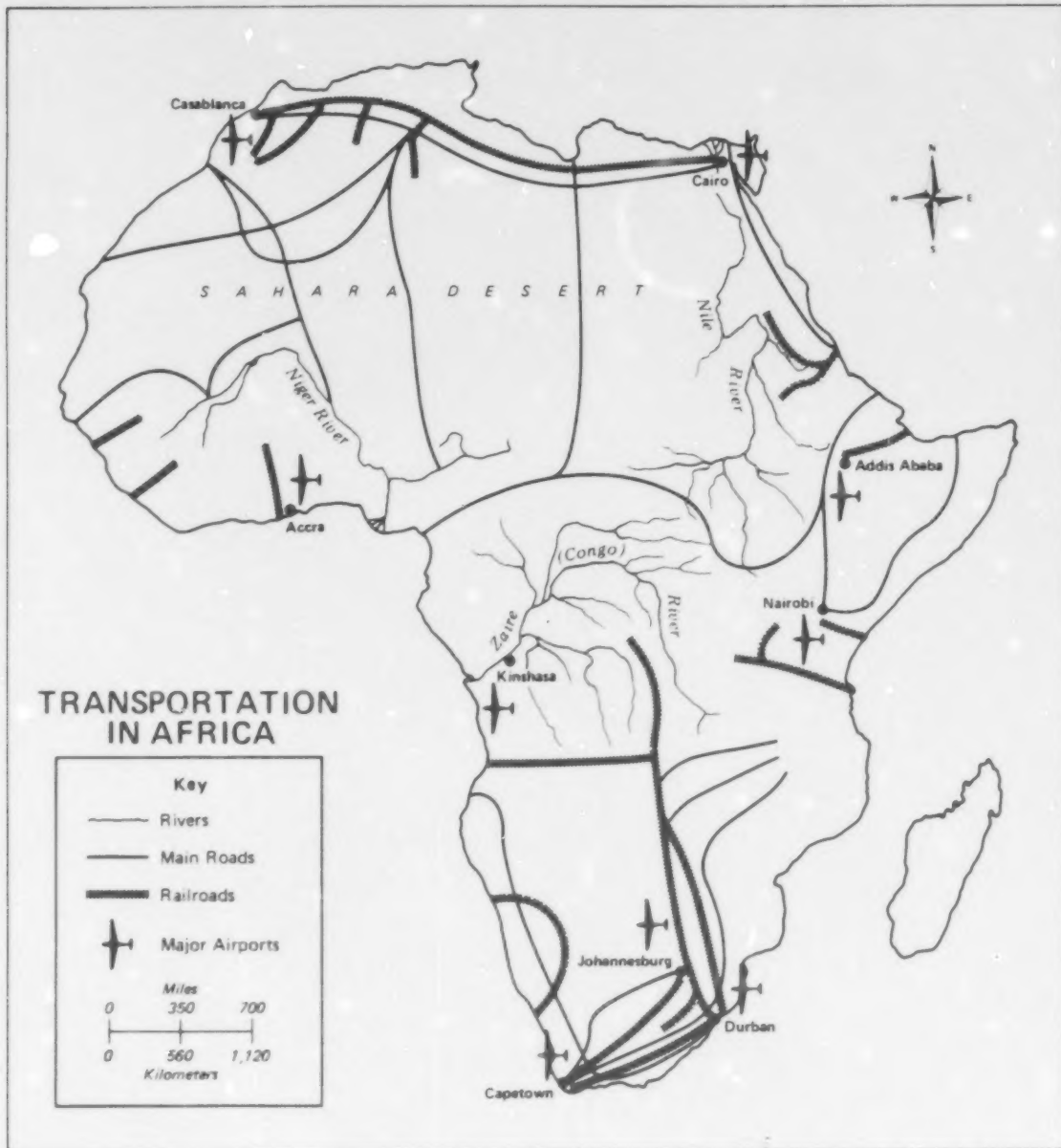
2. The food prices are given in

- ___ (a) Japanese yen.
- ___ (b) British pounds.
- ___ (c) United States dollars.
- ___ (d) Mexican pesos.

ANALYSIS SKILLS

3. The food prices are for
____ (a) 1972.
____ (b) 1974.
____ (c) 1976.
____ (d) 1978.
4. A pound of bread cost 57¢ in
____ (a) Washington, D.C.
____ (b) London.
____ (c) Tokyo.
____ (d) Mexico City.
5. A dozen eggs cost 65¢ in
____ (a) London.
____ (b) Buenos Aires.
____ (c) Tokyo.
____ (d) Mexico City.
6. A quart of milk cost 40¢ in
____ (a) Washington, D.C.
____ (b) London.
____ (c) Buenos Aires.
____ (d) Mexico City.
7. A pound of steak was most expensive in
____ (a) Washington, D.C.
____ (b) Buenos Aires.
____ (c) Tokyo.
____ (d) Mexico City.
8. A pound of cheese was most expensive in
____ (a) London.
____ (b) Buenos Aires.
____ (c) Tokyo.
____ (d) Mexico City.
9. A pound of potatoes was least expensive in
____ (a) Washington, D.C.
____ (b) London.
____ (c) Buenos Aires.
____ (d) Mexico City.

D. Study the following map of Africa.

Mastering Social Studies Skills
Amsco Publishing Co

Place a check mark next to the correct answers to questions 1 to 6.

1. The map shows

- _____ (a) how many railroads there are in Africa.
- _____ (b) how many people live in Africa.
- _____ (c) the major ways of traveling in Africa.

2. The symbols on the map
 - ___ (a) are explained in the text.
 - ___ (b) are explained in the key.
 - ___ (c) are not explained at all.
3. The symbol  on the map stands for
 - ___ (a) main roads.
 - ___ (b) major railroads.
 - ___ (c) major rivers.
4. The symbol  stands for
 - ___ (a) major cities.
 - ___ (b) major airports.
 - ___ (c) major canals.
5. The scale tells you
 - ___ (a) distance in miles or kilometers.
 - ___ (b) the weight of an area of a country.
 - ___ (c) the population of a country.
6. Which two cities are on major rivers?
 - ___ (a) Addis Ababa and Accra
 - ___ (b) Durban and Capetown
 - ___ (c) Kinshasa and Cairo
7. List the three major rivers shown on the map.

8. List three different ways you could travel between Cairo and Casablanca.

9. Why do you think there are few symbols on the area of the map marked Sahara Desert? (Answer in one or two sentences.)

Break the Spanish Code

Add each problem.

Find the letter in the code that corresponds to each answer.

9	8	9	4	3
8	7	7	7	5
6	5	6	2	6
5	4	4	5	8
3	2	3	2	2
2	1	2	8	4
1	0	5	7	6
4	3	0	6	3
9	8	7	4	0
+2	+1	+0	+1	+3

*

code

a 36	e 43	m 13	s 36
b 49	f 57	n 46	t 38
c 42	g 60	o 50	u 39
d 41	h 51	p 54	v 34

Break the German Code

Subtract each problem.

Find the letter in the code that corresponds to each answer.

$$\begin{array}{r} 943 \\ -169 \\ \hline \end{array}$$

$$\begin{array}{r} 913 \\ -473 \\ \hline \end{array}$$

$$\begin{array}{r} 922 \\ -269 \\ \hline \end{array}$$

$$\begin{array}{r} 952 \\ -118 \\ \hline \end{array}$$

$$\begin{array}{r} 946 \\ -348 \\ \hline \end{array}$$

$$\begin{array}{r} 942 \\ -476 \\ \hline \end{array}$$

$$\begin{array}{r} 931 \\ -189 \\ \hline \end{array}$$

*

code

a 536

b 715

c 225

d 674

e 435

f 945

g 598

h 653

r 837

s 774

t 742

u 466

Multiplication

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2 JR

EXAMPLE $2 \times 3 = ?$

2×3 is the same as $3 + 3 = 6$

Complete the multiplication table. Some numbers are filled in to help you get started.

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10							
3	6	9	12								
4	8										
5							40				
6											
7					42						
8								72			
9											
10											
11											
12											

Mathematics for Individual Achievement 5

Name _____

Score _____

For use with pages 159-164

Divide.

1. $40 \overline{)90}$ 7. $20 \overline{)170}$ 13. $60 \overline{)191}$ 19. $50 \overline{)381}$ 25. $80 \overline{)661}$

2. $30 \overline{)75}$ 8. $40 \overline{)292}$ 14. $80 \overline{)735}$ 20. $70 \overline{)500}$ 26. $70 \overline{)433}$

3. $20 \overline{)42}$ 9. $60 \overline{)305}$ 15. $90 \overline{)423}$ 21. $30 \overline{)153}$ 27. $50 \overline{)306}$

4. $80 \overline{)97}$ 10. $40 \overline{)384}$ 16. $70 \overline{)144}$ 22. $70 \overline{)438}$ 28. $40 \overline{)173}$

5. $50 \overline{)59}$ 11. $50 \overline{)490}$ 17. $20 \overline{)129}$ 23. $40 \overline{)255}$ 29. $60 \overline{)491}$

6. $40 \overline{)42}$ 12. $30 \overline{)155}$ 18. $30 \overline{)256}$ 24. $30 \overline{)100}$ 30. $40 \overline{)367}$

ANSWERS - 29

- | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1. 2H10 | 2. 2R13 | 3. 2R2 | 4. 1R17 | 5. 1R3 | 6. 1R2 | 7. 8P10 | 8. 7R12 | 9. 6P5 |
| 10. 9R24 | 11. 6R10 | 12. 5R5 | 13. 3R11 | 14. 9R15 | 15. 4R53 | 16. 2R4 | 17. 6P5 | 18. 8R10 |
| 19. 7R31 | 20. 7R10 | 21. 5R3 | 22. 6R18 | 23. 6R15 | 24. 3R10 | 25. 3R21 | 26. 6R13 | |
| 27. 6R5 | 28. 4R13 | 29. 8R11 | 30. 9R7 | | | | | |

Find the sums.

$$\begin{array}{r} \frac{1}{4} \\ + \frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{8} \\ + \frac{1}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{6} \\ + \frac{2}{6} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{8} \\ + \frac{4}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{5} \\ + \frac{3}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{12} \\ + \frac{5}{12} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{15} \\ + \frac{4}{15} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{14}{20} \\ + \frac{5}{20} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{12} \\ + \frac{5}{12} \\ + \frac{1}{12} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{8} \\ + \frac{2}{8} \\ + \frac{1}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{7} \\ + \frac{1}{7} \\ + \frac{1}{7} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{9} \\ + \frac{1}{9} \\ + \frac{2}{9} \\ \hline \end{array}$$

Find the sums.

$$\begin{array}{r} \frac{3}{8} \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{7} \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{6} \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{3} \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{16} \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{15} \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{20} \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{10} \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{10} \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{5} \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{4} \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{9} \\ + 2 \\ \hline \end{array}$$

Name _____

Score _____

For use with pages 219-220

Add.

1.
$$\begin{array}{r} \frac{1}{9} \\ + \frac{4}{9} \\ \hline \end{array}$$

4.
$$\begin{array}{r} \frac{0}{4} \\ + \frac{3}{4} \\ \hline \end{array}$$

7.
$$\begin{array}{r} \frac{2}{11} \\ + \frac{0}{11} \\ \hline \end{array}$$

10.
$$\begin{array}{r} \frac{3}{10} \\ + \frac{4}{10} \\ \hline \end{array}$$

13.
$$\begin{array}{r} \frac{2}{7} \\ + \frac{4}{7} \\ \hline \end{array}$$

16.
$$\begin{array}{r} \frac{2}{6} \\ + \frac{3}{6} \\ \hline \end{array}$$

2.
$$\begin{array}{r} \frac{1}{3} \\ + \frac{1}{3} \\ \hline \end{array}$$

5.
$$\begin{array}{r} \frac{2}{5} \\ + \frac{1}{5} \\ \hline \end{array}$$

8.
$$\begin{array}{r} \frac{4}{6} \\ + \frac{1}{6} \\ \hline \end{array}$$

11.
$$\begin{array}{r} \frac{1}{8} \\ + \frac{2}{8} \\ \hline \end{array}$$

14.
$$\begin{array}{r} \frac{2}{10} \\ + \frac{1}{10} \\ \hline \end{array}$$

17.
$$\begin{array}{r} \frac{2}{9} \\ + \frac{3}{9} \\ \hline \end{array}$$

3.
$$\begin{array}{r} \frac{2}{7} \\ + \frac{3}{7} \\ \hline \end{array}$$

6.
$$\begin{array}{r} \frac{5}{8} \\ + \frac{2}{8} \\ \hline \end{array}$$

9.
$$\begin{array}{r} \frac{2}{9} \\ + \frac{6}{9} \\ \hline \end{array}$$

12.
$$\begin{array}{r} \frac{3}{7} \\ + \frac{3}{7} \\ \hline \end{array}$$

15.
$$\begin{array}{r} \frac{0}{3} \\ + \frac{1}{3} \\ \hline \end{array}$$

18.
$$\begin{array}{r} \frac{0}{5} \\ + \frac{2}{5} \\ \hline \end{array}$$

Subtract.

19.
$$\begin{array}{r} \frac{1}{8} \\ - \frac{2}{8} \\ \hline \end{array}$$

21.
$$\begin{array}{r} \frac{3}{4} \\ - \frac{2}{4} \\ \hline \end{array}$$

23.
$$\begin{array}{r} \frac{4}{9} \\ - \frac{0}{9} \\ \hline \end{array}$$

25.
$$\begin{array}{r} \frac{6}{7} \\ - \frac{2}{7} \\ \hline \end{array}$$

27.
$$\begin{array}{r} \frac{4}{6} \\ - \frac{3}{6} \\ \hline \end{array}$$

29.
$$\begin{array}{r} \frac{2}{3} \\ - \frac{2}{3} \\ \hline \end{array}$$

20.
$$\begin{array}{r} \frac{9}{10} \\ - \frac{2}{10} \\ \hline \end{array}$$

22.
$$\begin{array}{r} \frac{5}{6} \\ - \frac{5}{6} \\ \hline \end{array}$$

24.
$$\begin{array}{r} \frac{7}{9} \\ - \frac{3}{9} \\ \hline \end{array}$$

26.
$$\begin{array}{r} \frac{7}{11} \\ - \frac{3}{11} \\ \hline \end{array}$$

28.
$$\begin{array}{r} \frac{9}{12} \\ - \frac{4}{12} \\ \hline \end{array}$$

30.
$$\begin{array}{r} \frac{9}{11} \\ - \frac{2}{11} \\ \hline \end{array}$$

ANSWERS • 43

1. $\frac{5}{9}$ 2. $\frac{2}{3}$ 3. $\frac{5}{7}$ 4. $\frac{3}{4}$ 5. $\frac{3}{5}$ 6. $\frac{7}{8}$ 7. $\frac{2}{11}$ 8. $\frac{5}{6}$ 9. $\frac{8}{9}$ 10. $\frac{7}{10}$ 11. $\frac{3}{8}$ 12. $\frac{6}{7}$
 13. $\frac{6}{7}$ 14. $\frac{3}{10}$ 15. $\frac{1}{3}$ 16. $\frac{5}{6}$ 17. $\frac{5}{9}$ 18. $\frac{2}{5}$ 19. $\frac{5}{8}$ 20. $\frac{7}{10}$ 21. $\frac{1}{4}$ 22. 0 23. $\frac{4}{9}$
 24. $\frac{4}{9}$ 25. $\frac{4}{7}$ 26. $\frac{4}{11}$ 27. $\frac{1}{6}$ 28. $\frac{5}{12}$ 29. 0 30. $\frac{7}{11}$

6 JR

Find the Products

Cancel where possible.

$$\frac{3}{4} \times \frac{1}{3} = \frac{1}{4}$$

$$\frac{5}{6} \times \frac{3}{8} =$$

$$\frac{2}{5} \times \frac{1}{5} =$$

$$\frac{2}{5} \times \frac{5}{8} =$$

$$\frac{9}{10} \times \frac{2}{3} =$$

$$\frac{5}{6} \times \frac{1}{5} =$$

$$\frac{5}{8} \times \frac{3}{5} =$$

$$\frac{7}{9} \times \frac{1}{4} =$$

$$\frac{1}{3} \times \frac{4}{5} =$$

$$\frac{3}{8} \times \frac{5}{12} =$$

$$\frac{3}{4} \times \frac{5}{8} =$$

$$\frac{3}{7} \times \frac{14}{15} =$$

$$\frac{4}{5} \times \frac{3}{4} \times \frac{2}{3} =$$

$$\frac{3}{16} \times \frac{1}{2} \times \frac{1}{3} =$$

$$\frac{3}{7} \times \frac{5}{6} \times \frac{14}{15} =$$

$$\frac{5}{8} \times \frac{11}{12} \times \frac{9}{10} =$$

Find the Products

Cancel where possible.

$$\frac{1}{2} \times \frac{3}{\cancel{4}} = \frac{3}{10}$$

$$\frac{3}{8} \times \frac{8}{10} =$$

$$\frac{5}{6} \times \frac{3}{4} =$$

$$\frac{9}{16} \times \frac{5}{6} =$$

$$\frac{7}{10} \times \frac{3}{5} =$$

$$\frac{4}{7} \times \frac{1}{6} =$$

$$\frac{2}{3} \times \frac{7}{8} =$$

$$\frac{5}{9} \times \frac{3}{5} =$$

$$\frac{3}{4} \times \frac{3}{5} =$$

$$\frac{3}{4} \times \frac{4}{9} =$$

$$\frac{5}{6} \times \frac{4}{5} =$$

$$\frac{7}{12} \times \frac{5}{6} =$$

$$\frac{6}{7} \times \frac{2}{3} \times \frac{3}{5} =$$

$$\frac{5}{8} \times \frac{4}{5} \times \frac{1}{2} =$$

$$\frac{3}{5} \times \frac{8}{9} \times \frac{5}{6} =$$

$$\frac{25}{42} \times \frac{18}{25} \times \frac{2}{3} =$$

Changing Improper Fractions to Whole or Mixed Numbers

The answers to many fraction problems are improper fractions. These answers are easier to read if you change them to whole numbers or mixed numbers. In an improper fraction the numerator (top number) is as big or bigger than the denominator (bottom number). To change an improper fraction, divide the denominator into the numerator.

EXAMPLE: Change $\frac{30}{4}$ to a mixed number.

$$\begin{array}{r} 7 \\ 4 \overline{)30} \\ \underline{28} \\ 2 \end{array}$$

Step 1. Divide the denominator into the numerator.

$$\frac{30}{4} = 7\frac{2}{4}$$

Step 2. Write the remainder over the old denominator. $\frac{2}{4}$

$$7\frac{2}{4} = 7\frac{1}{2}$$

Step 3. Reduce the fraction by 2. $7\frac{2 \div 2}{4 \div 2} = 7\frac{1}{2}$

EXAMPLE: Change $\frac{36}{9}$ to a whole number or a mixed number.

$$\begin{array}{r} 4 \\ 9 \overline{)36} \end{array}$$

Step 1. Divide the denominator into the numerator.

Step 2. There is no remainder. The answer is 4.

Change each improper fraction to a whole number or a mixed number.
Reduce each fraction that is left.

1. $\frac{5}{2} =$

$\frac{13}{4} =$

$\frac{17}{3} =$

$\frac{43}{5} =$

$\frac{40}{9} =$

2. $\frac{37}{10} =$

$\frac{24}{4} =$

$\frac{18}{7} =$

$\frac{53}{9} =$

$\frac{56}{7} =$

3. $\frac{22}{12} =$

$\frac{41}{12} =$

$\frac{30}{6} =$

$\frac{22}{8} =$

$\frac{23}{7} =$

4. $\frac{48}{9} =$

$\frac{52}{8} =$

$\frac{77}{8} =$

$\frac{40}{16} =$

$\frac{29}{6} =$

Adding Decimals

To add decimals, first line them up with *point under point*. Remember: Any whole number is understood to have a decimal point at its right.

EXAMPLE: Add $2.46 + .005 + 16$

Step 1. Line up *point under point*. Notice the decimal point after the whole number 16.

$$\begin{array}{r} 2.46 \\ .005 \\ +16. \\ \hline 18.465 \end{array}$$

Step 2. Add.

Add the following.

1. $.8 + .047 + .36 =$

2. $4.9 + 17 + 3.28 =$

3. $123 + 2.6 + 9.04 =$

4. $32.637 + 5 + 1.98 =$

5. $9.043 + .27 + 15 =$

6. $8.04 + 26 + 31.263 =$

7. $.849 + 1.6 + 73 =$

8. $.0097 + 2.8 + 16 =$

9. $7.563 + .08 + 124.9 =$

10. $83.007 + .47 + 9.8 =$

Find the products.

$$\begin{array}{r} 428 \\ \times 3.7 \\ \hline \end{array}$$

$$\begin{array}{r} 519 \\ \times 4.7 \\ \hline \end{array}$$

$$\begin{array}{r} 865 \\ \times .87 \\ \hline \end{array}$$

$$\begin{array}{r} 603 \\ \times .92 \\ \hline \end{array}$$

$$\begin{array}{r} 38.6 \\ \times 41.8 \\ \hline \end{array}$$

$$\begin{array}{r} 76.4 \\ \times 53.2 \\ \hline \end{array}$$

Find the products.

57.2

$\times 2.7$

64.3

$\times 3.6$

51.5

$\times .48$

97.2

$\times .56$

3.36

$\times 8.54$

4.19

$\times 3.76$

Bridging the Distance, Mavis Monson, University of Wisconsin.

Humanizing in teleconferencing

- is directly related to satisfaction
- influences the effectiveness of communications
- is part of the getting-to-know-someone process
- is important in expectation setting
- focuses on the importance of each individual

Participation in teleconferencing

- increases learning
- can be an activity we see or mental work in thinking about something
- influences opinion change
- affects creativity
- is central to an interactive system

Message Style in teleconferencing

- we think faster than we listen
- concentrated listening should be presented in shorter "bits"
- variety helps maintain interest
- repetition is important
- previews help in learning and remembering
- printed materials complement audio

Feedback in teleconferencing

- is important in communicating, learning, motivating
- is important to plan for
- can be verbal or written
- can come from ourselves or others
- should be part of the planning, implementing and evaluating stages

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FOR HOMEBOUND/SEVERELY DISABLED PEOPLE

Homebound Students can register by phone and receive books and course materials by mail.

TO REGISTER OR FOR INFORMATION CALL 256-7722 ext. 204

January Start:

MU 141	Appreciation and Literature of Music	
ED 161	Parenting the Handicapped Child	(evening)
EH 251	Mythology	
FR 116	Beginning French Conversation II	(evening)
HI 101	History of Western Civilization	(8 weeks)
MG 251	Human Relations in Business	(8 weeks)
PY 101	Introduction to Psychology	(8 weeks)
SO 101	Introduction to Sociology	(evening)
SP 116	Beginning Spanish Conversation II	

February Start:

GB 217	Business Communication	(8 weeks)
SO 101	Introduction to Sociology	(8 weeks)

May Start:

MG 279	Management and Leadership Trends	(7 weeks)
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All classes listed are 3 credit hours. Class fees are \$14 a credit hour.

GED CLASSES AVAILABLE TO HOMEBOUND STUDENTS

Help Us Reach Homebound People!

Tell A Homebound Friend!

The College also offers classes by audio cassette, television, radio and correspondence. Program advisement available to homebound students.

BEST COPY AVAILABLE

Dear Student,

WELCOME! Welcome to Rio Salado Community College's audio teleconferencing class for Spring 1985, Basic Skills Preparation.

This semester is the first time we have attempted to teach basic skills through teleconferencing. The teleconferencing format of teaching is new to me just as it is to you, which means all of us will have an additional learning experience this semester. I hope you will enjoy this basic skills class as much as I enjoy teaching it. We will try to make it enjoyable for everyone, and we will try to make each of you comfortable with teleconferencing.

In addition to teaching this basic skills class, I teach GED preparation classes and basic skills classes at Scottsdale Adult Learning Center during the day. My teaching credentials include a Master's in Education and a Bachelor of Arts in English. I have been teaching in higher and adult education for six years now.

On a personal note - I am married, have an active little puppy, and enjoy the beautiful outdoors in Arizona. I mention this since I am relatively new to Arizona, having moved here from Michigan last year.

I hope you will take advantage of my office hours if you need to contact me. You will be able to reach me at home on Monday evenings from 6:00-8:30 p.m., 838-3954. If that time is not good for you, I will also be available on Friday mornings at 8:30-9:30 a.m. at my work number, 941-5166.

As an alternative to calling me long distance, you will be able to drop me notes by postcards that I will provide for you at your first class session. I hope you will let me know any problems you may be having or any questions that you may have.

I am excited about this class; I hope you are too! I look forward to talking with you during our first class session this Spring.

GOOD LUCK,



ITEM 7

135 North 2nd Avenue, Phoenix, Arizona 85003 • (602) 256-7722 • Myrna Harrison, President

Dear Student,

WELCOME!

Welcome to Rio Salado Community College audio teleconferencing class for the Spring 1985 - GED.

I'm looking forward to sharing the next several months with you in this new program. Every attempt will be made to provide informative and clear lessons, but this will be a learning experience for all of us and some "bugs" still may crop up.

Besides teaching ABE/GED classes for Rio Salado, I also teach for the Department of Anthropology at Arizona State University in the area of Museum Studies. I am the Curator of the Anthropology Museum. My teaching credentials include a Masters of Elementary Education/Museum Science and a Bachelors of Arts in Anthropology/Archaeology. In addition, I am working on a Ph.D in Higher and Adult Education at Arizona State University.

My husband is a fire fighter for the Gilbert Fire Department and for Rural/Metro Fire Department. This is his half-time job. He also works for Storer Cable in Mesa. In his "extra" time he goes to Mesa Community College and is pursuing a degree in Fire Science. By the way, I met my husband teaching a GED class in Tucson, he was one of my students.

You will note in the syllabus that information is provided concerning my office hours, including my home phone number. Please call me if you need assistance, but I would encourage you to set up peer tutoring, this will save you time and money.

Good luck to you.

Sincerely,

Jacquelyn McCarthy-Tapia

Jacquelyn McCarthy-Tapia
(Jacquelyn)

RIO SALADO COMMUNITY COLLEGE

Course Syllabus for
BASIC SKILLS CLASS, Spring 1985
(Via Audio Teleconferencing)Day/Time:

Thursday 7:00 - 9:30 p.m.
Friday 7:00 - 8:30 a.m.
Saturday 9:00 - 11:30 a.m.

Instructor:

Cynthia Maxson

Phone: Office - 941-5166
Home - 838-3954
5038 S. Hardy Dr., Tempe, AZ 85282

Office Hours: Monday evenings, 6:30-8:00 p.m. at 838-3954
Friday mornings, 8:30-9:30 a.m. at 941-5166

Text:

GED Scoreboosters I, II, and III
Building Basic Skills in Science

Course Description:

Instruction in (1) basic skills, (2) preparation to pass the GED test, and
(3) preparation relating to job training.

Instructor Goals/Objectives:

- 1) Provide basic skill instruction in 5 subject areas - reading, writing, math, social studies, and science - to individuals with various abilities and personal and professional goals.
- 2) Present basic skill instruction via teleconferencing that will be practical and useful in every day tasks. At the same time, the instruction will help prepare students to (1) successfully obtain the GED, (2) to successfully enter the job market, or (3) to successfully train instructors and aides.

Competencies:

Students will demonstrate the ability to:

1. Understand basic math operations including whole numbers, fractions, decimals, percents, and measurement.

Competencies, (Cont.):

2. Compute measurements in length, weight, capacity, time, and temperature.
3. Capitalize and punctuate sentences.
4. Recognize and correct fragments.
5. Formulate parallel sentences.
6. Distinguish between homonyms for correct usage and spelling.
7. Demonstrate understanding of graphs, tables, charts, and maps.
8. Analyze reading passages for main idea and theme.
9. Utilize strategies to find details and unknown vocabulary.
10. Discover hidden meanings and inferences in reading passages.
11. Understand basic spelling rules.
12. Locate supporting details in reading exercises.
13. Analyze poetry for poetic devices and main idea.

FOR JOB READINESS CLACS, IN ADDITION TO THE ABOVE, STUDENTS WILL DEMONSTRATE THE ABILITY TO:

14. Recognize want ad abbreviations and their correct spellings.
15. Prepare for an interview.
16. Calculate gross and net pay.
17. Fill out forms related to job readiness.
18. Prepare a resume.
19. Analyze themselves for job strengths and weaknesses.

Course Plan:

A detailed plan for the 10 week course is given in the following pages. You should use these plans for your guidance in studying for each week. Included are handouts separated in the three subject areas that we will discuss from time to time.

Attendance:

I hope that you try to attend each class session so you will get as much out of the course as possible. If you cannot attend and you know in advance,

Attendance, (Cont.):

please feel free to contact me during office hours or by dropping me a post-card with the information.

Certificate of Achievement:

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Tutor Time:

I encourage all of you to help one another at each location. After class or before class begins would be a great opportunity for you to help one another with problems, answer questions, and simply get to know each other better.
GOOD LUCK!

RIO SALADO COMMUNITY COLLEGE

Course Syllabus for
BASIC SKILLS CLASS, Spring 1985
(Via Audio Teleconferencing)Day/Time:

Thursday	7:00 - 9:30 p.m.
Friday	7:00 - 8:30 a.m.
Saturday	9:00 - 11:30 a.m.

Instructor:

Jacquelyn McCarthy-Tapia

Phone: Office - 965-6213 (8:00 a.m.-5:00 p.m.)
Home - 926-0913 (after 6:00 p.m. on Sunday)

Office Hours: From 11:30 to 12 noon after class on Saturday, there will be time on the bridge to answer questions. Please use this time to clarify anything you didn't understand.

Text:

GED Scoreboosters: I, II, III
Building Basic Skills in Science

Course Description:

Instruction in (1) basic skills, (2) preparation to pass the GED test, and (3) preparation relating to job training.

Instructor Goals/Objectives:

- 1) Provide basic skill instruction in 5 subject areas - reading, writing, math, social studies, and science - to individuals with various abilities and personal and professional goals.
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Students will demonstrate the ability to:

1. Understand basic math operations including whole numbers, fractions, decimals, percents, and measurement.

Competencies, (Cont.):

2. Compute measurements in length, weight, capacity, time, and temperature.
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8. Analyze reading passages for main idea and theme.
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FOR JOB READINESS CLASS, IN ADDITION TO THE ABOVE, STUDENTS WILL DEMONSTRATE THE ABILITY TO:

14. Recognize want ad abbreviations and their correct spellings.
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3. Capitalize and punctuate sentences.
4. Recognize and correct fragments.
5. Formulate parallel sentences.
6. Distinguish between homonyms for correct usage and spelling.
7. Demonstrate understanding of graphs, tables, charts, and maps.
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14. Recognize words and abbreviations and their correct spellings.
15. Prepare for an interview.
16. Calculate gross and net pay.
17. Fill out forms related to job readiness.
18. Prepare a resume.
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Attendance, (Cont.):

please feel free to contact me during office hours or by dropping me a post-card with the information.

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Tutor Time:

I encourage all of you to help one another at each location. After class or before class begins would be a great opportunity for you to help one another with problems, answer questions, and simply get to know each other better.
GOOD LUCK!

RIO SALADO COMMUNITY COLLEGE

Course Outline
BASIC SKILLS/JOB READINESS CLASS, Spring 1985
(Via Audio Teleconferencing)

Unit 1

- A. Math
 - 1. Topic: Review of Addition and Subtraction
 - 2. Handouts: (1)
 - 3. Assignment: pp. 16-25 in Math Book
- B. Writing
 - 1. Topic: Capital Letters - Introduction
 - 2. Handouts: (1)
 - 3. Assignment: pp. 182-185 in Writing Book
- C. Employment Skills
 - 1. Career Opportunities
 - 2. Booklet: The Job Hunt

Unit 2

- A. Math
 - 1. Topic: Multiplication
 - 2. Handouts: (2)
 - 3. Assignment: Read pp. 25-31 in Math Book
- B. Writing
 - 1. Topic: Capital Letters - Advanced
 - 2. Handouts: None
 - 3. Assignment: Read pp. 185-189 in Writing Book
- C. Employment Skills
 - 1. Topic: Gross/Net Pay
 - 2. Handouts: (1)

Unit 3

- A. Math
 - 1. Topic: Division
 - 2. Handouts: (3)
 - 3. Assignment: Do pp. 36-39 in Math Book
- B. Writing
 - 1. Topic: End Marks
 - 2. Handouts: (2)
 - 3. Assignment: None
- C. Employment Skills
 - 1. Topic: Help Wanted Abbreviations
 - 2. Handouts: (2)

Basic Skills/Job Readiness Class, Spring 1985
Course Outline, Page 2

Unit 4

- A. Math
 - 1. Topic: Fractions - Introduction
 - 2. Handouts: None
 - 3. Assignment: Do pp. 40-44 in Math Book
- B. Writing
 - 1. Topic: Abbreviations
 - 2. Handouts: (3)
 - 3. Assignment: Read pp. 137-140 in Writing Book
- C. Employment Skills
 - 1. Topic: Employment Tests
 - 2. Handouts: Booklet - The Job Hunt

Unit 5

- A. Math
 - 1. Topic: Addition and Subtraction of Fractions
 - 2. Handouts: (4)
 - 3. Assignment: Do pp. 44-48 in Math Book
- B. Writing
 - 1. Topic: Comma - Introduction
 - 2. Handouts: (4)
 - 3. Assignment: Do pp. 141-147 in Writing Book
- C. Employment Skills
 - 1. Topic: Help Wanted Ads
 - 2. Handouts: (3)

Unit 6

- A. Math
 - 1. Topic: Find LCD (Least Common Denominator)
 - 2. Handouts: (5)
 - 3. Assignment: Do pp. 48-52 in Math Book
- B. Writing
 - 1. Topic: Commas - Advanced
 - 2. Handouts: (5)
 - 3. Assignment: Do pp. 44-47 in Writing Book
- C. Employment Skills
 - 1. Topic: Building a Resume
 - 2. Handouts: Booklet - The Job Hunt

Basic Skills/Job Readiness Class, Spring 1985
Course Outline, Page 3

Unit 7

- A. Math
 - 1. Topic: Multiplication and Division of Fractions
 - 2. Handouts: (6)
 - 3. Assignment: Do pp. 52-56 in Math Book
- B. Writing
 - 1. Topic: Sentence Structure
 - 2. Handouts: (6)
 - 3. Assignment: Read pp. 182-187 in Reading Book
- C. Employment Skills
 - 1. Topic: Filling Out Job Applications
 - 2. Handouts: Booklet - The Job Hunt

Unit 8

- A. Math
 - 1. Topic: Multiplication and Division of Mixed Numbers
 - 2. Handouts: (7)
 - 3. Assignment: Do pp. 61-69 in Math Book
- E. Writing
 - 1. Topic: Graphs
 - 2. Handouts: (7)
 - 3. Assignment: Read pp. 187-192 in Reading Book
- C. Employment Skills
 - 1. Topic: The Overall Job Picture
 - 2. Handouts: (4)

Unit 9

- A. Math
 - 1. Topic: Adding and Subtracting Decimals
 - 2. Handouts: (8)
 - 3. Assignment: Do pp. 69-79 in Math Book
- B. Writing
 - 1. Topic: Charts
 - 2. Handouts: (8)
 - 3. Assignment: Read pp. 192-197 in Reading Book
- C. Employment Skills
 - 1. Topic: Preparing for an Interview
 - 2. Handouts: Booklet - The Job Hunt

Basic Skills/Job Readiness Class, Spring 1985
Course Outline, Page 4

Unit 10

A. Math

1. Topic: Multiplication and Division of Decimals
2. Handouts: (9)
3. Assignment: None

B. Writing

1. Topic: Maps
2. Handouts: (9)
3. Assignment: None

C. Employment Skills

1. Topic: Overtime Pay
2. Handouts: (5)

RIO SALADO COMMUNITY COLLEGE
Adult Basic Education

M E M O R A N D U M

TO: All Students

FROM: Cynthia Maxson and Jacquelyn Tapia

SUBJECT: GED Teleconferencing Classes

DATE: February 21, 1985

Classes in basic skills and GED preparation through teleconferencing will begin the week of February 25th, 1985. Your Saturday morning class will start March 2nd, 9:00 - 11:30 a.m.

Enclosed are the books and materials you will need for your class. You will find a welcome letter from your instructor, a course outline and handouts that will be used from time to time. Please try and read over the course description and your welcome letter before the first class.

All that you will need to do on the first morning of class is to call 256-0426 at approximately the starting time of class. Note: the line may be busy with another call, so try again and keep redialing until you get through.

GOOD LUCK!

GED PREPARATION VIA THE SUNDIAL NETWORK
(An Audio Teleconferencing System)

A 310 Special Demonstration Project
funded by the State Department of Education
Adult Education Division

Rio Salado Community College
Phoenix, Arizona
1984-1985

DISCLAIMER AND ACKNOWLEDGEMENT

This publication is made possible through funding received from the U.S. Office of Education P. L. 91-230 and the Department of Education of the State of Arizona ARS 15-232-234. The opinions expressed here do not necessarily reflect the position or policy of the U.S. Office of Education or the Department of Education, State of Arizona, and no official endorsement by either office should be inferred.

GED PREPARATION VIA THE SUNDIAL NETWORK

Keeping adult education in touch with high technology was of prime interest in this grant. By using the Sundial Network, Rio Salado Community College, GED Teleconferencing became a reality. The concept of teaching the "hard-to-reach" was realized.

Special thanks go to those persons who gave their encouragement and support to make this project possible.

Sterling Johnson, Director
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Arizona State Department of Education
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Phoenix, AZ 85007

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Phoenix, AZ 85003

Resource Guide

I. Teleconferencing

Teleconferencing is the means of joining two or more groups or individuals in different locations through a telephone system. Phone lines transmit an instructor's voice to communities and sites miles away where it is amplified in each distant classroom or home, and to the students through a microphone or telephone. Necessary visuals used for instruction are either included in print materials distributed to the distant learners or transferred to slides which are sent to each learning site. All that is necessary at the site to participate in this form of distant learning is a telephone and an electrical outlet.

II. Recruitment and Students

The students were recruited through flyers to Project Directors and with contact with the Project Homebound, Rio Salado Community College (RSCC). Project Homebound is a part of the Instructional Technology and Design Department (ITD) of RSCC devoted to recruiting homebound students for credit and non-credit courses. Advertisement about the course was included in their flyers. The majority of our students came from this source. If a Program Director is contacted and doesn't have a waiting list of potential homebound students, then recruitment is difficult.

The student population desired were students capable of completing the GED materials in ten weeks. In reality, our program designated ABE students for one class and those thought to have GED level (9.0) skills in a higher level class.

Contact was made with Department of Economic Security personnel regarding interest expressed by a counselor in Yuma, Arizona. After agreement by personnel in Phoenix and a meeting with personnel in Yuma, the Yuma site was agreed upon. While meeting there, the instructor felt that the counselors emphasized the need for including "vocational language." This was included by using the Yuma site as an ABE class with a portion the time spent working on job readiness skills, particularly using The Job Hunt, published by Coronet Instructional Media, a division of Esquire, Inc., Chicago, Illinois.

III. Curriiculum

The Associate Dean of ITD for RSCC trained the instructors in a technical background of equipment, curriculum development, and a simulation/critique via teleconferencing. The instructors used GED Scoreboosters I, II, III, published by Steck-Vaughn, Austin, Texas and Building Basic Skills in Science, published by Contemporary Books, Inc., Chicago, Illinois. These books met the instructor's needs for clearness of ideas, and suitability for the ten-week time span. Curriculum development was on-going throughout the planning stage.

It was found that a specifically designed needs assessment should be developed for both reading and math. This would ensure a more manageable division between ABE and GED students.

IV. Equipment

The central control for the system is a Darome "Meet-Me" Bridge located at RSCC. This bridging device can connect up to 20 different distant locations for simultaneous interactive instruction. This set-up is part of the Sundial Network located at RSCC. Students at individual homes or sites called into the bridge at the appropriate time to be connected with the instructor via telephone. These students could also use a head-set instead of just a receiver. For large groups, students are able to use a convener and microphones. One site in Yuma was connected via speaker phone with an adaptor.

V. Evaluation

The materials were adequate for this class session, but for future classes there needs to be further separation according to ABE or GED. The instructors found that their communication skills greatly improved. The instructors became very resourceful in using a variety of explanations to communicate to each student.

The most rewarding aspect was that of the responses of the students. From the beginning, students felt comfortable using the system and were eager participants. This was probably due to prior contact with the students by the instructor and secretary. Initial contact helped put the students at ease and eliminated many concerns.

One problem area is commitment from the students. Several of the students who were sent materials never completed the course due to one reason or another. Can students be expected to stay committed?

VI. Recommendations

A specific reading and math assessment should be devised to better determine the level of materials that the students use in class. There should be specific different classes, one for ABE and one for GED.

Recruitment was definitely not a strong point. The means of distributing flyers did not reach the population intended. A greater portion of the population needs to be reached. The state of Arizona has "hard-to-reach" adults, but how does a program reach them?

Teleconferencing is one type of delivery to be pursued for adults who are geographically apart from adult education classes and those who are homebound and/or handicapped. More time, money and effort need to be directed towards finding students before beginning the program.

The student population in Yuma was not GED skill level. In fact, two of the students had extremely low basic skills and our instructor had to completely revise the level of the materials to meet their needs.

Teleconferencing is the answer to many programs as long as the equipment is available. Adults readily adopt to this "self-motivated" style of education.

VIII. Distribution

This project is composed of an introduction, timeline, welcome letters from instructors, memorandum about class times, course syllabus and course outline for Basic Skill/GED Class (Via Audio Teleconferencing) and hand-outs to correspond to the course outline.

GED TELECONFERENCING

GED Teleconferencing is a multi-phased project. The following will provide the instructor with a workable outline and time frame for using the materials.

1. Recruit students through promotion, word-of-mouth, and teacher reference.
2. As soon as student name is received, send a welcome letter from the instructor about self and teleconferencing. Be sure to include the fact that the instructor will call the student.
3. Approximately two weeks before the class begins, mail the books, hand-outs, course syllabus and outline to the students. Instructor should call students.
4. Prior to class (one week) secretary should call again to confirm dates, times and call-in phone number with the student. Continuous contact with the students is VERY important.
5. During the first session, spend the first one-third humanizing teleconferencing, then proceed with the lessons.
6. The materials are arranged for a ten-week course.
7. Students are able to call the instructor during office hours to further humanize the course. This is a time for one-on-one tutoring.
8. The course outline is divided into one week projects with the work to be studied and the homework to be completed identified.
9. Chances are that some students will excel in one area and not in another; therefore, the course outline may not be adhered to strictly.
10. BE FLEXIBLE! HAVE FUN!

Student Evaluation 1985
Basic Skills Teleconferencing Class
310/Special Demonstration Project

ITEM 8

Instructions: For each item below, please mark whether you agree or disagree with the statement, using the following system:

1 Agree 2 Neutral 3 Disagree

*For those who did not complete the class, please fill out only parts A and B.

A. Information received by mail before the class:

1. Was clear	1	2	3
2. Was complete	1	2	3
3. Arrived in time for the first class session	1	2	3

B. For those who did not complete the class:

My main reason I did not complete the class was _____

C. The instructor called before the first class session and explained when and how to call in the first night.

1 2 3

D. The class materials (books and handouts):

1. were clear	1	2	3
2. were helpful	1	2	3
3. were adequately discussed in class by the instructor	1	2	3

E. The amount of material covered:

1. was adequate	1	2	3
2. seemed reasonable amount to cover in 10 weeks	1	2	3

F. The instructor for the class:

1. covered 3 subject areas per class	1	2	3
2. was clear and explained things well	1	2	3
3. was helpful and allowed for questions from all students	1	2	3

G. The class as a whole:

1. met my needs	1	2	3
2. was conducted in a pleasant, informal manner	1	2	3

Instructions: Please answer these questions about the program.

H. What did you like best about the class?

I. Do you think the class should be offered in the future? Why/Why not?

J. What did you like least about the class?

K. Any suggestions for improvement?

THANK YOU! Please return this evaluation in the stamped envelope provided.